Recent legislation has mandated changes in program admission prerequisites, program length, and course levels. This document may not include the final versions of these changes. See your college advisor for current information.
PEGASUS was the winged horse of the muses in Greek Mythology. He carried their hopes, their aspirations, and their poetry into the skies. PEGASUS is as futuristic as tomorrow’s space exploration in our solar system and into the universe beyond. The seal also bridges the gap between the humanities and space technology.

Accent on the Individual
Accent on Excellence

Cover: Features the Center for Research & Education in Optics and Lasers (CREOL) building, one of the latest additions to the expanding UCF campus. The rendering was designed and donated by Jagdish J. Chavda.

Photos: Ricardo Aguilar

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The University of Central Florida, under applicable rules of the Administrative Procedures Act, may change any of the announcements, information, policies, rules, regulations, or procedures set forth in this catalog. The catalog is published once a year and cannot always reflect new and modified regulations. Statements in this catalog may not be regarded in the nature of binding obligations on the institution or the State of Florida. While every effort will be made to accommodate the curricular needs of students, limited resources may prevent the University from offering all required courses in each semester or in day and evening sections.

Students will be held accountable for the requirements, policies, and procedures described in this catalog. Additional information or clarification of any policy or procedure may be obtained from the specified office.

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2) submission to or rejection of such conduct by an individual is used as the basis for employment or enrollment decisions affecting such individual, or
3) such conduct has the purpose or effect of substantially interfering with an individual's work performance or enrollment, or creating an intimidating, hostile, or offensive working or academic environment.

Sexual harassment is strictly prohibited and will be dealt with in accordance with University rules.

Employees, students, or applicants for employment or admission may obtain further information on this policy, including grievance procedures, from the Equity Coordinator. The Director of the Office of Equal Opportunity and Affirmative Action Programs is the campus Equity Coordinator responsible for concerns in all areas of discrimination. The office is located on the main campus, in Administration 330, Orlando, Florida 32816-0030. The phone number is (407) UCF-1EEO.

Drug-Free Workplace/Drug-Free Schools Policy Statement

The University of Central Florida, in accordance with legislation passed by the federal government as part of the war on drugs program, has adopted the policy statement DRUG-FREE WORKPLACE/DRUG-FREE SCHOOLS. Information regarding this policy may be obtained in the Office of Personnel Services (AD 230) or the Division of Student Affairs (AD 282).

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In accordance with Title 34, Sections 688.41 and 688.47, Code of Federal Regulations, campus security reports are available upon request by current and prospective students. Summaries of campus security activities appear regularly in the student newspapers and are available to other interested parties by contacting the University Police Department, University of Central Florida, PO Box 163550, Orlando FL 32816-3550, Phone (407) 823-2429.
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Go east on 528 to 417 North. Take 417 North (Toll Road) to University Blvd. Exit east onto University Blvd. to UCF.

From Daytona on I-4:
Exit 49 onto Route 434. Go through Longwood and Oviedo on 434 to UCF.

From Tampa on I-4:
Exit 28 onto East 528 (Toll Road). Go past Orlando International Airport to 417 North. Take 417 North (Toll Road) to University Blvd. Exit east onto University Blvd. to UCF.

From South on Florida Turnpike:
Exit 254 (Orlando South - 441). Take first right onto East 528 (Toll Road). Go east past Orlando International Airport to 417. Take 417 North (Toll Road) to University Blvd. Exit east onto University Blvd. to UCF.

From North on Florida Turnpike:
Exit 265 onto East 408 (Toll Road). Go east through Orlando to merge with 417. Take 417 north to University Blvd. Exit east onto University Blvd. to UCF.

From Titusville (East Coast):
Hwy. 50 west past 408 overpass to 434. Turn right to UCF (2 miles).

From Melbourne:
I-95 to 520 to Hwy. 50 west to right on 434 or I-95 to 528 west (toll) to 417 north to University Blvd. Exit east to UCF.

Reader comments and suggestions for improving the usefulness of this catalog may be sent to: Catalog, UCF Registrar’s Office, PO Box 160114, Orlando, FL 32816-0114.
**ACADEMIC CALENDAR 1996-97**

**FALL SEMESTER 1996**

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<td>August 2</td>
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<td>August 19 (1 p.m.)</td>
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<td>August 17</td>
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<td>August 22-23</td>
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<tr>
<td>August 28-30</td>
<td>Late Registration, Add/Drop</td>
</tr>
<tr>
<td>August 30</td>
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<td>September 2</td>
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<td>October 18</td>
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<tr>
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</tr>
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<td>December 22 (12 noon)</td>
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</table>

All Undergraduate degree-seeking students are required to attend orientation prior to enrollment. Information on orientation is mailed to all students upon acceptance to the University.

If possible, examinations should not be scheduled on days or during times of religious holidays. Students are expected to notify their instructor in advance if they intend to observe a holy day of their religious faith. Refer to the paragraph Religious Observances in the Academic Policies and Procedures section of this catalog. For additional information contact the Office of Diversity Initiatives, AD 329, Phone: (407) 823-6479.
ACADEMIC CALENDAR 1996-97
SPRING SEMESTER 1997

Application deadline for international graduate students
Early Registration
Spring Graduation Application Due in College Advising Office
Fees due for continuing undergraduate early registration
Application deadline for all undergraduate applicants, transfers, and readmissions
Residence Halls open
Registration by appointment
Classes begin
Late Registration, Add/Drop
Last day to submit Grade Forgiveness Request
Last day for refund/fees due
Martin Luther King Day. (University Holiday)
FTCE, GMAT, LSAT
Withdrawal deadline
Spring Holidays
GMAT
Founders' Day Honors Convocation (Classes canceled 1030am-1230pm)
GRE
FTCE, MCAT
Classes end
Prep day for final exams
Summer Graduation Application Due in College Advising Office
Final Examination period
Grades due in Registrar's Office
Commencement
Residence Halls close

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ACADEMIC CALENDAR 1996-97

SUMMER "C" TERM 1997

(See also Summer "A", "B", and "D")

November 15: Application deadline for international graduate students
March 24-April 11: Early Registration
April 11: Fees due for continuing undergraduate early registration
April 21: Summer Graduation Application due in College Advising Office
April 15: Application deadline for all undergraduate applicants, transfers, and readmissions
May 11 (1 PM): Residence Halls open
May 12: Registration by appointment
May 13: Classes begin
May 15-16: Late registration, Add/Drop
May 16: Last day to submit Grade Forgiveness Request
May 16: Last day for refund/fees due
May 26: Memorial Day Holiday (University-wide)
June 7: CLAST
June 14: GMAT
June 27: Withdrawal deadline
July 4: Independence Day Holiday (University-wide)
August 2: FTCE
August 4: Classes end
August 6 (12 noon): Grades due in Registrar’s Office
August 9: Commencement
August 10 (12 noon): Residence halls close
August 16: MCAT

All Undergraduate degree-seeking students are required to attend orientation prior to enrollment. Information on orientation is mailed to all students upon acceptance to the University.

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November 15  Application deadline for international graduate students
March 24-April 11  Early Registration
April 15  Application deadline for all undergraduate applicants, transfers, and readmissions
April 21  Summer Graduation Application due in College Advising Office
May 11 (1 p.m.)  Residence Halls open
May 12  Registration by appointment
May 13  Classes begin for Summer "A" Term
May 15-16  Late Registration, Add/Drop
May 16  Last day to submit Grade Forgiveness Request
May 16  Last day for refund/fees due
May 26  Memorial Day Holiday (University-wide)
May 30  Withdrawal deadline
June 7  CLAST
June 14  GMAT
June 23  Classes end for Summer "A" Term
June 24 (9 a.m.)  Residence Halls close
June 25 (12 noon)  Grades due in Registrar's Office
July 4  Independence Day Holiday (University Wide)
August 2  FTCE
August 9  Commencement

All Undergraduate degree-seeking students are required to attend orientation prior to enrollment. Information on orientation is mailed to all students upon acceptance to the University.

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ACADEMIC CALENDAR 1996-97

SUMMER "B" TERM 1997

November 15: Application deadline for international graduate students
March 25-April 11: Early Registration
April 11: Fees due for continuing undergraduate early registrants
April 15: Application deadline for all undergraduate applicants, transfers, and readmissions
April 21: Summer Graduation Application due in College Advising Office
June 22 (1 p.m.): Residence Halls open
June 23: Registration by appointment
June 24: Classes begin for Summer "B" Term
June 27: Late Registration, Add/Drop
June 27: Last day to submit Grade Forgiveness Request ("B" term only)
June 27: Last day for refund/fees due
July 4: Independence Day Holiday (University-wide)
July 11: Withdrawal deadline
August 2: FTCE
August 4: Classes end for Summer "B" Term
August 6 (12 noon): Grades due in Registrar's Office
August 9: Commencement
August 10 (12 noon): Residence Halls close
August 16: MCAT

All Undergraduate degree-seeking students are required to attend orientation prior to enrollment. Information on orientation is mailed to all students upon acceptance to the University.

If possible, examinations should not be scheduled on days or during times of religious holidays. Students are expected to notify their instructor in advance if they intend to observe a holy day of their religious faith. Refer to the paragraph Religious Observances in the Academic Policies and Procedures section of this catalog. For additional information contact the Office of Diversity Initiatives, AD 329, Phone: (407) 823-6479.
### ACADEMIC CALENDAR 1996-97

#### SUMMER "D" TERM 1997

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<td>March 24-April 11</td>
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<td>May 30</td>
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<tr>
<td>August 2</td>
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</tr>
<tr>
<td>August 8</td>
<td>Commencement</td>
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</table>

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UNIVERSITY OF CENTRAL FLORIDA

The University of Central Florida, a member institution of the State University System, was formerly Florida Technological University. The name was changed by action of the Florida Legislature on December 6, 1978.

MISSION STATEMENT

UCF is a growing metropolitan university with the responsibility to deliver a comprehensive program of teaching, research, and service. Its primary mission is to provide intellectual leadership through quality undergraduate and graduate programs. UCF offers undergraduate education rooted in the arts and sciences, providing a broad liberal education while developing competence in fields of special interest. Unique aspects of UCF's approach are its commitment to educate students for a world in which cooperation is as important as competition; in which societal and environmental impacts of new developments are as important as their technical merits; and in which technology, the arts, sciences, humanities, and commerce work together to shape the future.

The complexity of modern society requires comprehensive graduate and professional programs. UCF provides advanced education that matches institutional strengths with evolving regional, state, national, and international needs. It supports these advanced programs by recruiting excellent students, faculty, and staff and by supplying the infrastructure that enables these programs to achieve national prominence.

Basic and applied research, as well as creative activity, are integral parts of a quality education. UCF faculty are scholar-teachers. As such, they create new knowledge, new points of view, and new means of expression in a broad range of academic, professional, and socially significant areas. Their creativity fosters innovation as they convey their results, methods, values, and expressions to students, colleagues, and the public.

Service to its community is an important extension of the teaching and research mission of the University. Public service is prominent at UCF, with the University developing partnerships with the community to enrich the educational, artistic, cultural, economic, and professional lives of those it serves in Central Florida and beyond.

Education is more than classroom experience. UCF students are involved in cooperative research and participate in artistic, social, cultural, political, and athletic activities. UCF provides academic diversity by bringing to its campus national and international leaders who expose students and the community to a wide range of views and issues. UCF achieves cultural diversity by using its multi-campus facilities to serve a diverse population of traditional and non-traditional students from various races, cultures, and nationalities.

UCF is committed to the free expression of ideas, the equality of all people, and the dignity of the individual.

ACCREDITATION

The University of Central Florida is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools to award degrees at the associate, baccalaureate, master's, and doctoral levels.

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UCF is listed in Transfer Credit Practices on Designated Educational Institutions with the highest level of credit acceptability. This handbook is published by the American Association of Collegiate Registrars and Admission Officers, and lists the acceptability of transfer credits based upon the reporting institutions in the states, commonwealths, territories, and selected international institutions.
EAST CENTRAL FLORIDA AREA

UCF is located in East Central Florida, a region with a population of about two million. Known principally for its tourist attractions, the area is one of the fastest growing regions in the nation. East Central Florida is noted for its many lakes. Atlantic beaches are an easy hour drive from the main campus. The area offers Walt Disney World and other attractions that draw more vacationers here than anywhere else. The area also offers Broadway productions, pop and classical music headliners, art festivals, a Shakespeare festival of UCF origin, the National Basketball Association's Orlando Magic and restaurants of every type and price.

THE ORLANDO CAMPUS

The 1,445-acre campus is located in the Orlando suburbs, 13 miles northeast of downtown. Sixty-one permanent buildings - valued at more than $243 million - radiate outward from an academic core, where UCF's colleges, classrooms and library are located. More than $22 million in construction, including a $14 million communications building, is planned over the next three years. New facilities recently completed or now under construction include a 700-bed residence hall, an $11 million student union and an $11 million building to house the Center for Research and Education in Optics and Lasers. UCF recreational facilities include lighted tennis and racquetball courts, an outdoor swimming pool, golf driving range, volleyball and basketball courts and ball fields.

UCF AREA CAMPUSES

In addition to the academic programs offered on the Orlando campus, the University of Central Florida offers a number of upper-division programs and graduate programs at area campuses in Cocoa and Daytona Beach. Times and dates for all courses are listed in the regularly published schedule of classes. The College of Business Administration has a satellite office in downtown Orlando to target working executives who are looking for new management or marketing skills.

A new Downtown Academic Center is scheduled to open in mid-1996. Operated within the Division of Continuing Education, the Center will offer programs designed to meet the needs of the residents and businesses in downtown Orlando.

Clark Maxwell, Jr. Lifelong Learning Center
UCF Brevard Area Campus
1519 Clearlake Road
Cocoa, FL 32922

Campus Director
James A. Drake
(407) 632-1111, Ext. 65568

Assistant Director
Doyce E. Walter
(407) 632-1111, Ext. 65563

Coordinator: Admissions/Registration and Records/
Financial Aid Services
Charlene A. Stinard
(407) 632-1111, Ext. 65609

The Brevard Campus of the University of Central Florida operates in partnership with the Brevard Community College District System. Although the Brevard Campus is housed primarily at the BCC Cocoa Campus, programs and courses are also delivered by UCF-Brevard faculty at the BCC Melbourne and Palm Bay campuses.

In Cocoa, the UCF Brevard Campus forms part of the "Circle of Science and Technology," a complex of buildings encompassing the world-class BCC Planetarium, the state of the art BCC/UCF Joint-Use Library, and the laboratories and facilities of the Florida Solar Energy Center (FSEC), a UCF research division.

The UCF Brevard Campus offers upper-division (junior, senior) and graduate courses in sixteen undergraduate and eight graduate degree programs. At the Brevard Campus, BCC and UCF became the first in Florida to fully implement the 2 + 2 concept recommended by the Postsecondary Education Planning Commission (PEPC).

In a new initiative, staff from UCF and BCC have co-located in the Student Center to provide a one-stop center for undergraduate admissions, registration, records updates, cashiering, and evening child care. Students have access to a joint use computer lab, and the BCC Computer Aided Instruction Lab offers students of both schools remedial classes, writing skills assistance, and tutoring.

All five UCF colleges have faculty and administrative offices at the Brevard Campus. Telephone numbers as well as programs offered by each of the colleges are shown below:
College of Arts and Sciences (407) 632-1111, Ext. 65545
Psychology
Liberal Studies Program
Social Sciences

College of Business (407) 632-1111, Ext. 65576
Accounting (coursework only)
General Business Administration

College of Education (407) 632-1111, Ext. 65575
Elementary Education
Exceptional Education
Science Education - Biology (Secondary)

College of Engineering (407) 632-1111, Ext. 65556
Electrical Engineering Technology
  with concentrations in Electrical Systems and
  Information Systems
Engineering Technology
  with concentration in Operations
Industrial Engineering

College of Health and Public Affairs (407) 632-1111, Ext. 65586
Communicative Disorders
Criminal Justice
Legal Studies
Nursing
Public Administration

GRADUATE PROGRAMS
Masters of Business Administration (MBA)
Masters of Communicative Disorders (MA)
Masters of Education Leadership (MEd)
Masters of Education Elementary Education (MEd)
Masters in Public Administration (MPA)
Engineering FEEDS/ITV Graduate Engineering (Courses on videotape)

GRADUATE DEGREE PROGRAMS
The UCF Daytona Beach campus offers upper division and graduate level courses to residents of Volusia and Flagler counties. A unique educational partnership between UCF and Daytona Beach Community College allows students to earn an associate of arts degree at DBCC and a baccalaureate degree at UCF. UCF courses are taught by sixteen resident faculty, visiting Orlando faculty, and local adjuncts.

UCF moved from a resident center on Clyde Morris Blvd. to a new, more expansive facility on the DBCC campus in 1987. A silicone-domed higher education building housing classrooms, labs, and office space enabled UCF to expand programs and acquire branch campus status in the Board of Regents system. A second building, completed in 1991, houses more classrooms and faculty offices as well as a 130-seat auditorium and conference center.

A wide range of services is offered for Daytona Beach students including admissions, registration, financial aid, student clubs and organizations, disability services, veterans affairs, career resources, and others. Registration periods at Daytona Beach correspond to Orlando schedules. Admissions, registration and student services offices are located in Building 34, Suite 106. Business hours are 8:00 AM to 6:30 PM Monday to Thursday and 8:00 AM to 4:00 PM on Friday. Hours are extended during scheduled registration periods.

The following degree programs are currently offered at the Daytona Beach campus:

**UNDERGRADUATE DEGREE PROGRAMS**

College of Arts and Sciences (904) 254-4412
- Liberal Studies
- Psychology
- Social Sciences
College of Business Administration (904) 254-4412
General Business Administration
Accounting (Partial)
Economics (Partial)
Finance (Partial)
Management (Partial)
Marketing (Partial)

College of Education (904) 254-4428
Education programs are limited-access. Acceptance to the University and/or College of Education does not constitute admission. Separate application must be made to the Daytona Beach campus program.

Elementary Education
Exceptional Education

College of Engineering (904) 255-7423
Engineering (Partial/Video)

College of Health & Public Affairs (904) 254-4412
Criminal Justice
Legal Studies
Nursing (904) 254-4428

GRADUATE PROGRAMS (904) 255-7423
Business Administration (MBA)
Educational Leadership
Engineering (Video)
Public Administration
Reading Education
Vocational Education

Doctoral: Educational Leadership

ENDORSED CHAIRS

First, the College of Business Administration describes its mission.

The College of Business Administration is committed to providing a quality education that prepares students for successful careers in business.

Second, the College of Education explains its focus.

The College of Education is dedicated to preparing educators who are knowledgeable, skilled, and committed to excellence in education.

Finally, the College of Engineering highlights its priorities.

The College of Engineering is focused on providing engineering students with a strong foundation in technical knowledge and skills.

These descriptions reflect the mission and values of each college at the institution.
CENTRAL FLORIDA RESEARCH PARK

The Central Florida Research Park, abutting the main UCF campus, is a university related research park established as a result of legislation passed by the Florida Legislature in 1978. The Park is a cooperative effort between the University of Central Florida, the Orange County Research and Development Authority, and the Orange County Board of County Commissioners (who appoint the members of the Authority). The governing body of the Park is the Orange County Research and Development Authority.

The objectives of the Central Florida Research Park are in keeping with the legislative action which enabled its creation "to encourage and promote the establishment of research and development activity combining the resources of institutions of higher learning, private sector enterprise involved in pure or applied research, and state or federal governmental agency research."

The ultimate goal of university-related research parks is to establish an academic/industry community resulting in a unique approach to the creation of a more effective cooperative academic/industrial endeavor. The University and officials of the Central Florida Research Park believe that the potential for the establishment of close ties between the University and industry will create an attractive environment conducive to the location of research-oriented industry in the Park. This activity will enrich and support the academic, teaching, and research programs of the University. The University, in turn, as a community of scholars, reservoir of knowledge past and present, and creator of new knowledge and discovery, can provide the necessary expertise and human resources to enhance the research and development activities required and planned by Park residents.

Totally planned to provide a campus-like environment for business adjacent to UCF, the Central Florida Research Park consists of over 1,000 acres of land. Businesses which desire a "university relationship" can purchase or lease land in the Research Park on which to construct a facility or can lease space for office, office/lab, or light manufacturing activities.

University organizations, including the Institute for Simulation and Training, are located in the Research Park. The Naval Air Warfare Center Training Systems Division, and the Army Simulation, Training, and Instrumentation Command (STRICOM), the focal point of the nation's simulation and training industry, have their headquarters in the Research Park. Over $700 million in federal contracts is granted by the Army and Navy each year.

Currently over 70 companies are located in the Research Park pursuing activities in simulation and training, lasers, optical filters, behavioral sciences, diagnostic test equipment, and oceanographic equipment. Approximately 4,000 employees currently work in the Research Park including many students and faculty.

Research Park tenants are involved with the University of Central Florida through sponsored research, using faculty as consultants, and using graduate and undergraduate students for intern programs and part-time employment. Research Park tenants can also contract with the University for the use of the library, computer resources, and laboratory facilities. Cooperative projects range from technical research to developing business plans and employee training programs.

ENDOWED CHAIRS

Endowed chairs are established under terms of the 1980 Florida Eminent Scholars Act, which provides $420,000 in state funds to match $600,000 in contributions from private sources within a six-year period. UCF presently has six fully funded endowed chairs and three others fully pledged:

Phillips-Schenck Chair in American Private Enterprise - Created in 1980 as the focal point for a continual dialog on major economic issues, comparative economic systems, and economic decision-making in business. The Chair: Dr. David F. Scott, Jr.

Charles N. Millican Chair in Computer Science - Created in 1983 and dedicated to probing the frontiers of computer science, with emphasis on the direction that the discipline will take over the next decade. The Chair: Dr. Narsingh Deo.

William and Alice Jenkins Chair in Community Arts - Created in 1986 to enable UCF to design and oversee programs covering art administration, art therapy and art education within the Central Florida community. The Chair: Dr. Kristin G. Congdon.
Carl H. Galloway Chair for Excellence in Business - Created in 1986 to honor Carl Galloway, a pioneer in telecommunications. This chair will establish a Ph.D. program in Business Administration.

Cobb-L.J. Hooker Chair in Optical Sciences and Engineering - Created in 1988 as the largest academic gift ever received by UCF. The gift supports the work of an internationally recognized scholar in laser and optical sciences. The Chair: Dr. George I. A. Stegeman.

General Mills Chair in Restaurant Management - Created in 1990 to develop a program of excellence in restaurant management, this chair, the first of its kind in the country, will also serve as a critical resource for the hospitality industry.

SunBank Chair of Banking for Teaching Excellence - Created in 1989 to attract a nationally or internationally prominent expert in banking and a strong commitment to undergraduate, graduate, and Executive Development.

Al Burnett-Contemporary Cars Eminent Scholar Chair in Accounting - Created in 1989 to support an exceptional faculty member in the School of Accounting.

Bert Fish Memorial Eminent Scholar Chair - Created in 1990 to establish an endowed chair in nursing education. This is the first chair to be established at the Daytona Campus. It is designed to improve nursing education and ease the shortage of nurses.

INFORMATION TECHNOLOGIES AND RESOURCES

The Division of Information Technologies and Resources includes the Library, Computer Services, Telecommunications, and the Office of Instructional Resources. The Division has responsibility for planning, implementation, and support of information resources to serve the University's primary functions of instruction, research, and administration.

Specific services and facilities provided by each of the above units are described in the following sections.

University Libraries
Director: Anne Marie Allison, LR 512, Phone (407) 823-2564
Associate Director: Lynn LaBrake-Harrison, LR 512, Phone (407) 823-2564

The University Library, housed in a facility of 200,000 square feet, has a collection of over one million volumes (books, journals, government documents) with approximately 5,000 subscriptions (journals, newspapers, and other serials) and over 13,500 media titles. The Library is a partial depository for US and Florida documents, and US Patents. The Library online catalog, called LUIS, may be accessed through terminals in the Library, at other Campus locations, or from personal computers at home. Through LUIS, Library users can determine whether the UCF Library owns a particular item, and the location and availability of the item. In addition, LUIS also provides on-line access to catalogs of all state university libraries in Florida, and to ERIC, IAC and other indexes.

The University Library is open approximately 95 hours each week, including evenings and weekends. A shortened schedule is maintained during vacation periods, and hours are extended during the last few weeks of each semester. A staff of professional librarians and paraprofessionals is available to assist those using the Library. Arrangements may also be made for class or small group instruction. Faculty, staff, and students can obtain materials not available in the Library's collections through the Interlibrary Loan service. The Library can provide customized computer-produced bibliographies from any of approximately 500 different commercially available databases.

Special services are provided for the disabled. By using a computer terminal, disabled students can determine the availability of the books they need, and telephone the Library to request that books be brought to them at a convenient location on campus. A Kurzweil reading
machine is available in the Library for the visually impaired; students or faculty may arrange for instruction in its use. Through the cooperation of the University's Office of Student Disability Services and the Florida Bureau of Blind Services the Library staff can aid disabled students in obtaining special equipment they may need to use Library resources.

The Curriculum Materials Center (CMC), located in the College of Education Building, provides representative K-12 educational curriculum materials for preview. Serving primarily Education students and faculty, the CMC plays a unique role in the educational process of current and future educators. The collections total about 20,000 volumes and 3,500 media titles (including audio, videos, compact disks, computer software, and multi-media).

Students enrolled in the University's area campuses in Daytona Beach and Brevard County receive a full range of services from the Daytona Beach Community College Library (DBCC) and the joint-use BCC/UCF Library (Brevard). Students at the South Orlando Campus have access to an "electronic" library. On-line access to the catalog of the main Library collection is available from all branch campus locations and materials are delivered through a regular courier service. UCF has added special subject related collections at the area campuses totaling about 15,000 volumes and 342 serial subscriptions.

The Florida Solar Energy Center Library, recently moved into the BCC/UCF Joint-Use Library, offers specialized collections in energy analysis, energy conservation, and solar energy technologies. Their holdings include over 10,000 volumes, 15,000 reports, 374 journal titles, and 3,500 media titles.

Computer Services and Telecommunications

Computer Services and Telecommunications provides central support services for administrative data processing, instruction and research computing, telecommunication networks, email, telephony, information technology, training, user help, and microcomputer technology retail to the University.

Central instruction and research computing is provided primarily by computers located on the main campus as follows: Novell LAN file servers, IBM RS/6000 model 580, IBM ES/9000 model 170 and other Internet and campus facilities. There are four public access IBM PC labs in Computer Center II (CC II), the Engineering Building (ENG), Education (EDU), and the Business Building (BA). UNIX equipment is also available in CC II and ENG. PowerMac and Macintosh labs are also available in CC II and EDU. Public access labs are available for faculty and students. Most labs are open seven days a week with extended hours.

Voice response systems are available for dialup registration, grades and financial aid information. Campus KIOSK workstations are available in the Administration and Library buildings for frequently asked questions and individual student record information. Additional information is available on the Knight Information System Gopher and UCF World Wide Web servers. Computer accounts are provided to all students for E-mail, computer labs, and network access.

The University also operates a full service sales, service and support on-campus computer store (bldg. 541) which provides the UCF community a source for quality computer products and services at competitive prices. The store is an authorized campus reseller for Dell, Apple, IBM, Sun, Microsoft, Lotus, and many other products. Maintenance and training support is also available from the store.

Main campus telephone services are provided by the University's Rolm 9751 multinode PBX. Resident students have the option to subscribe to voicemail and access to the long distance carrier of their choice. AT&T ACUS is the primary provided to the campus.

Office of Instructional Resources (OIR)

Instructional Resources supports UCF with graphics, Digital Information Processing Lab, photography, and television production; a full range of audiovisual and classroom support services; and a wide range of instructional development assistance and consultation. Instructional Resources also provides Faculty and Classroom Support, Faculty Development, Faculty Multimedia Center, ITFS Television Network, the campus Cable Network, teleconferencing, satellite interconnection, and Distance Learning facilities.
One of the University of Central Florida's five general goals is to achieve prominence by providing an international focus to its curricula and research programs and increasing the number and diversity of international students and cross cultural activities. UCF offers a variety of programs that support the goal to internationalize the university by offering students an opportunity to gain first-hand information on the arts, customs, economy, geography, human services, languages, and political systems of other countries. UCF also offers many types of study abroad programs that meet general education requirements as well as the needs of majors in all colleges.

The Office of International Studies (OIS) is a university level office which coordinates and serves as a clearinghouse for all international programs within the university. The mission of the OIS is to create an environment that facilitates the identification, development, promotion, coordination, and support of high quality international activities related to the academic mission of UCF. The ongoing development of the international dimension at UCF will be realized through the implementation of goals and objectives related to the curriculum, faculty development, policies and planning, academic support, students, the community, funding, and external agencies. The general goals stated in the UCF Five Year Plan for International Studies are:

- To infuse the curriculum with international content that will teach students to think about themselves and their profession within an interdependent world context and prepare them to compete in a global market.
- To increase the pool of faculty with international expertise in order to have an impact upon all facets of the academic experience at UCF.
- To create an environment that encourages the development and continuation of international programs through the appropriate policies.
- To identify and improve all components of academic support that are integral to internationalizing UCF.
- To offer students an educational experience that will prepare them to compete as global citizens in an interdependent and diverse world.
- To create strong linkages between the international dimensions of UCF and the Orlando community.
- To develop additional methods of funding international programs and activities at UCF.
- To monitor the activities of and develop contacts with external agencies relevant to the international mission of the university.

Study Abroad Programs

The primary purpose of study abroad programs is to improve the linguistic and cultural proficiency of the UCF students. Study abroad is not just for foreign language majors. UCF has programs designed to meet the general education and language requirements of all students, as well as programs designed for majors within every college. The benefits of participation in a study abroad program transcend the courses content.

The UCF study abroad programs are designed and administered by UCF faculty. All programs require a person with good health, emotional stability, maturity, adaptability, curiosity, and a sense of adventure. Students have the choice of programs that last one year, one semester, or six weeks. Some programs require proficiency in a foreign language, others do not. Prerequisites, length of stay, and academic requirements vary by program. UCF has
summer programs in Canada, Germany, Italy, Spain, and Russia. UCF faculty and students also participate in State University System programs in London, England, Florence, Italy and Costa Rica. If UCF does not offer a program in the language or country of your choice, the Office of International Studies will provide information from the inventory of study abroad programs offered through the State University System of Florida. For information on these programs call (407) 823-5375

**Linkage Institutes**

The eleven Binational Linkage Institutes were established by the Florida Legislature to mobilize the resources of Florida universities and community colleges and integrate them with the efforts of government and business. They were created to enhance the State's competitive position in strategic foreign countries. Institutes have been created for Brazil, Canada, the Caribbean, China, Costa Rica, Eastern Europe, France, Israel, Japan, Mexico, and West Africa. These institutes are authorized to waive up to 25 FTE of the out-of-state portion of tuition each academic year for international students from the representative countries enrolled in SUS universities and community colleges.

The University of Central Florida is home to two of these linkage institutes. For more information about the Florida-Canada Linkage Institute, call (407) 823-2079. For more information about the Florida-Eastern Europe Linkage Institute call (407) 658-5571; or write to 12424 Research Parkway, Suite 130, Orlando, FL 32826. Contact the OIS for the names and numbers of the directors of programs located at the other SUS universities.

**Area Studies Programs**

Area Studies programs are multi-disciplinary programs that focus on specific regions or cultural groups. UCF has five area studies programs with an international focus: Asian, Canadian, Judaic, Latin American and Iberian Studies, and Russian Studies. Although the academic home of these programs is the College of Arts and Sciences, faculty from across the entire university may participate in these programs. These programs may be elected as minors by students majoring in any discipline within the university. For more information about the programs and contact numbers of the program directors see the list below. Contact the Office of International Studies for assistance or referral for all international inquiries regarding academic programs.

**THE UCF ALUMNI ASSOCIATION**

The University of Central Florida Alumni Association was developed to maintain awareness and support of the University by the alumni. Membership is open to all alumni and friends of the University. Membership in our Alumni Association provides many benefits, including:

- Timely information within the pages of *Pegasus*, UCF's bi-monthly alumni magazine
- Career resources and placement opportunities available nationwide
- Discounts with rental car agencies, hotels, and theme parks all across the country
- Free use of several campus recreational facilities
- Invitations to events like Homecoming, as well as local and regional alumni get-togethers
- Free borrowing at UCF library (main branch)
- Special alumni rates at UCF Computer Store
- 15% discount on UCF logo items at campus Bookstore
- Members-only discounts at Association-sponsored activities
Numerous personal and professional networking opportunities

Every dues-paying member is eligible to participate in the election of a Board of Directors for the Association and to hold an office on the Board or one of its committees. The Board guides the direction of the Association including the development of programs and annual scholarships for undergraduate and graduate students. For information, contact the UCF Alumni Relations Office, Administration 340, Phone (407) UCF-ALUM (823-2586) or toll-free, (800) 330-ALUM.

UNIVERSITY OF CENTRAL FLORIDA FOUNDATION, INC.

The UCF Foundation, Inc. is a non-profit, tax-exempt corporation directed by a 60 member community based Board of Directors that encourages, solicits, receives, and administers private gifts and bequests of property and funds for scientific, educational, and charitable purposes. All gifts to UCF are received and processed through the Foundation for support of the University. Call (407) 249-4740 for additional information.

UNIVERSITY BOOKSTORE

The University Bookstore is owned and operated by the University of Central Florida. The University Bookstore is located in the Student Services Building and is open to the public. In addition to textbooks and school supplies, this facility offers a complete line of UCF insignia clothing and gift items. A brochure of UCF items is available for mail order purchases. Write to: UCF Bookstore, PO Box 162444, Orlando, FL 32816-2444, or call (407) 823-2665 to request a brochure or inquire about store hours.

INTERCOLLEGiate ATHLETICS

Programs in Intercollegiate Athletics are coordinated by athletic department coaches and staff under the general supervision of the Director of Athletics.

The University of Central Florida is a member of the National Collegiate Athletic Association (NCAA), Division I and competes in the Trans America Athletic Conference. Intercollegiate athletic contests are governed by the rules of play published by NCAA and all established eligibility standards are observed.

UCF's current intercollegiate sports for men include baseball, basketball, cross country, golf, football, soccer, and tennis. Women's sports include basketball, crew, cross-country, golf, soccer, track, tennis and volleyball. Crew for men and water-skiing for men and women are intercollegiate club sports.

THE ORLANDO-UCF SHAKESPEARE FESTIVAL

The Orlando-UCF Shakespeare Festival is a year-round arts and humanities project whose center is its professional Equity repertory theatre, producing the works of Shakespeare and other classical playwrights. Performances are every April at the Walt Disney Amphitheater in downtown Orlando, at Lake Eola Park.

In its fifth anniversary season, the Festival has achieved a position of national recognition, attracting its acting company as well as supporting artists and scholars, from around the world. The Festival has been featured in such national publications as Theater Week, Backstage, and Southern Theater. The Orlando-UCF Shakespeare Festival also has several affiliated activities which take place throughout the year.

Among the Festival's affiliated activities are its Young Company: a classical multiethnic, multiracial acting company composed of talented Central Florida youngsters, mentored by UCF students; Shakespeare at Elderhostel: an international education program for senior citizens; Shakespeare: In The Mind's Eye: a performance-based study guide available to 25,000 teachers and students in Central Florida; Classics In Context: a year-round community-anchored series of special events, which in 1994, featured a radio talk show produced by WUCF, and featuring faculty, students and Orlando citizens discussing modern themes and issues from the Season's plays; The Center For Dramatic Literature, Humanities and Civic Values: an exciting program for professionals in our community which explores issues of ethics, leadership, and decision-making; the Orlando-UCF Shakespeare Festival Class: an interdisciplinary class, co-presented at Rollins College, offering a study of the plays within the Festival's environment; the UCF Early Music Ensemble: an on-going ensemble of community and UCF students who play music from the Medieval, Renaissance, and Baroque periods on
period instruments. Musicians drawn from the Ensemble serve as the Festival's resident musical company.

Internships, special topics classes, and independent studies with the Festival involve students from film, art, English, humanities, journalism, music, education, theatre and engineering. Other disciplines interested in exploring formal relationships with the Festival should contact the Orlando Shakespeare Festival, 30 S. Magnolia Avenue, Suite 250, Orlando, Florida 32801, (407) 423-6905.

TRANSIT SERVICES

Through joint efforts of UCF Student Government, LYNX and the University/Alafaya Corridor Transportation Association (UACTA), UCF staff, faculty, and students have the availability of a number of transit options.

Three bus routes serve UCF from Oviedo, Downtown Orlando, and both Valencia Community College campuses. Through the use of these routes, commuters can connect to almost anywhere in Greater Orlando. These buses normally operate at 30 to 60 minute intervals. The cost for LYNX routes is seventy-five cents per ride.

The LASER Shuttle is a local shuttle system with three separate routes. These routes serve most residential and commercial areas near UCF as well as the Central Florida Research Park and the Quadrangle. The LASER shuttle is easily identified by UCF sports scenes depicted on each bus. LASER runs every thirty minutes and costs twenty-five cents. Semester passes are available at substantial savings at the UCF Bookstore. Route maps may be obtained at the Administration Building Information Booth or by calling LYNX at (407) 841-8240.

UCF PUBLIC SAFETY AND POLICE

The UCF Police Department is a full service law enforcement agency. The Patrol Division provides services twenty-four hours a day, seven days a week, patrolling on foot, in marked cars, and on mountain bikes. A Crime Prevention Unit (407) 823-2165, presents seminars on property protection and personal safety. Students are hired and trained for the Student Escort Patrol Service (SEPS), an evening escort service for persons on campus (407) 823-2424. Victim Services (407) 823 2425 or 6069, assists victims with emotional support, practical assistance, information and referrals and educational programs. Available upon request is the, Police Service & Safety Guide, published in accordance with the Federal Crime Awareness and Security Act of 1990. For non-emergency calls, call (407) 823-5555. For emergency fire, medical or police assistance, call 9-1-1.
STUDENT AFFAIRS

INTRODUCTION
The mission of the Division of Student Affairs is to provide services and programs to enhance the teaching/learning process while simultaneously improving the student's total collegiate experience. In partnership with other university divisions and the community, the division fosters an environment that promotes the holistic development of students and encourages lifelong learning. Student Affairs at the University of Central Florida encompasses three separate but interdependent components: student services, student life, and student development.

OFFICE OF THE DEAN OF STUDENTS
The Dean of Students Office (Ad Bldg., Room 282, (407) 823-2851) is the primary source for students seeking information on non-academic areas of the University. The office staff strives to introduce students to educational opportunities designed to provide personal, social, and academic growth outside the classroom. Additionally, the Deans supervise the judicial affairs process as well as counsel students confronted with a variety of difficulties, referring students for specialized professional services as necessary.

The Division of Student Affairs annually publishes the student handbook, *The Golden Rule*, which contains more detailed information on student life. Copies may be obtained in the Student Affairs Suite, Room 282, Administration Building. Students are urged to take advantage of the many services and educational programs available through the Dean of Students Office and the Division of Student Affairs.

CONFIDENTIALITY OF STUDENT RECORDS
The procedures for protecting the confidentiality of student records are based on state regulations and the federal *Family Educational Rights and Privacy Act of 1974*. Students who have questions concerning the confidentiality of records should contact the Dean of Students Office. Details of the University practices for confidentiality are presented in *The Golden Rule*.

CLASSROOM RESPONSIBILITY
Students are responsible for maintaining a classroom decorum appropriate to the educational environment. When the conduct of a student or group of students varies from acceptable standards and becomes disruptive to normal classroom procedures, the instructor has the authority to remove the offending party from the room and refer the student to the Dean of Students Office for judicial action.

STUDENT CONDUCT
Students are subject to federal and state laws and local ordinances as well as regulations prescribed by the University of Central Florida and the Florida Board of Regents. The breach or violation of any of these laws or regulations may result in judicial action. Detailed conduct regulations and procedures are presented in *The Golden Rule*.

A person applying for admission to UCF who has declared an adjudication of a violation of conduct policies at a previous college or university or a violation of the law which resulted in probation, community service, a jail sentence, or the revocation or suspension of their driver's license (including traffic violations which resulted in a fine of $200 or more) may have circumstances of the case reviewed by the Dean of Students office to consider eligibility for admission.

STUDENT GOVERNMENT
The purpose of the Student Government is to provide a system whereby students can effect progressive changes that bring about improvements in campus life. Student Government also endeavors to promote better communication and understanding among the UCF family and to provide certain services which impact student life. All enrolled students at UCF campuses, both graduate and undergraduate, are considered active members of Student Government who are allowed to voice their opinions through senate representatives. Funds available from the
Activity and Service Fee paid by students are used to provide numerous activities and services to students to support their academic endeavors at UCF. Student Government is effective at lobbying for the rights of students at local, state, and national levels.

The democratic process of SGA is grounded in the fundamental structure of the US Government. The executive, legislative, and judicial branches have representatives from each college at UCF. The structure of Student Government provides an atmosphere that reflects the democratic processes of the real world, thus providing students an opportunity to become educated and experienced in practical situations.

Some of the services made available to students and funded by student Activity and Service Fees are: legal services, computer lab, discount entertainment tickets, free local telephones, vehicles for clubs' and organizations' use, and funding for recreational services as well as campus programming.

Students interested in working with SGA may obtain information from the SGA offices located in the Student Center (407) 823-2191.

STUDENT LEGAL SERVICES

Student Legal Services provides students with advice and consultation including court representation in selected areas of law such as landlord/tenant, consumer, simple wills, and non-criminal traffic. Each eligible student (an undergraduate student currently enrolled at UCF or graduate student currently enrolled in UCF) is entitled to consult with a Program Attorney about any legal matter not excluded by program guidelines free of charge. Students in need of legal services should contact Student Legal Services at (407) 823-2538, or Student Center Room 227. This service is by appointment only, and no legal advice is given over the phone.

ORIENTATION

Orientation sessions are provided to all new students at the University of Central Florida. Important information is provided regarding advisement, registration, housing, the transition to college life, and the administration of placement tests. Faculty, administrators, and a specially trained group of students assist the sessions and are available to answer any questions. Information is mailed to each student accepted by the University regarding date, time, and location of the orientation sessions.

UNIVERSITY COUNSELING AND TESTING CENTER

The University Counseling and Testing Center (Recreational Services Building, Room 203 (407) 823-2811) offers a professional staff of psychologists and counselors to assist students through educational, vocational, and career counseling; and personal, social, relationship, marriage, and family counseling.

The Center administers the following national testing programs: GRE, LSAT, GMAT, and MCAT. In addition, the Center administers the College Level Academic Skills Test (CLAST), and a variety of interest, aptitude, career, occupational, and personality assessments.

The Center presents special programs throughout the year, including training in relaxation and coping skills, self-hypnosis training, stress reduction training, and group psycho-therapy. All Center services are free to UCF students.

CAREER RESOURCE CENTER.

The Career Planning and Placement Center, provides a broad range of career related services to UCF students, alumni, and employers. The Center runs five career expos and fairs, over 100 weekly career planning mini classes, and hosts several hundred employer recruiting visits each year. To help students navigate the complexities of the job market, the center offers the Resume Expert ($25.00) database information management system which can refer resumes to interested employers. Full-time and part-time jobs are listed on a 24-hour telephone jobsline called KnightLink. An employer information library is available. An interactive computer guidance program (CHOICES) is available along with Career Development Coordinators to assist with individual career needs.

Students beginning studies at UCF are encouraged to begin thinking about careers as soon as possible. Seniors are urged to register at least two semesters prior to graduation.

Further information may be obtained by visiting the Center in AD Suite 124 or calling (407) 823-2361.
HOUSING

Regularly enrolled single students paying registration fees for a minimum of nine semester hours may apply for assignment to University residential units. Currently, there are seven residence halls on the campus of the University of Central Florida. The total combined designed capacity of the seven halls is 867 spaces. Additionally, there are 15 buildings in the Lake Claire Courtyard Apartment Complex which house 702 students in single occupancy four bedroom apartments. These apartment facilities are restricted for assignment to students who have completed at least 24 semester hours of college credit. Because of the limited amount of space in University housing facilities, the University does not require any student to live on campus. There are no on-campus accommodations for married students.

Priority for assignment is given to incoming Freshmen who will occupy approximately 50 percent of the University’s housing capacity in the seven residence facilities. Current residents will occupy most of the remaining space. The spaces set aside for incoming Freshmen are limited by the University’s overall residence hall capacity. Therefore, those desiring to reside on campus should apply for admission to the University as soon as possible.

Applications for housing can be accepted only from those applicants who have been admitted to the University. Priority for room assignments for new applicants is based on the date of receipt of the completed housing application in the Housing Office. Applicants should CAREFULLY READ the application before submitting it to the Housing Office along with the Letter of Acceptance to the University and the $150.00 prepayment.

Housing contracts (whether in the on-campus apartments or the residence halls) when issued for Fall Semester occupancy, serve as a two-semester (Fall AND Spring) obligation between the applicant and the Housing Office. Housing contracts issued for the Summer Semester are a one-semester (Summer Only) obligation and do not extend to include an assignment to Fall housing accommodations.

Applicants have the option of choosing one of several Meal Plans available at the University. Specific information concerning University Meal Plans is available from Marriott Corporation, P.O. Box 168017, UCF, Orlando, FL 32816-0222.

Applications and other information concerning University housing may be obtained by consulting the Department of Housing and Residence Life, P.O. Box 163222, UCF, Orlando FL 32816-0222, Phone: (407) 823-4663.

Off-Campus Housing

Within two miles of the campus are numerous apartment and duplex communities, in addition to a privately-owned residence hall complex. Sidewalks, bike paths, and Tri-County bus service connect many of these facilities with the University. Students living off-campus are invited to participate in one of the University meal plans.

STUDENT HEALTH SERVICES (SHS)

Recognizing the importance of lifestyle in health and the prevention of disease, the Student Health Services combines quality care for illness and accidents with an aggressive health education and lifestyle enhancement program. A Student Wellness Advocate Team (SWAT) enhances the health promotion efforts of the Student Health Center. Student Health Advisory Committee (SHAC) serves as liaison representing students for Health Center programs and operation.

The Student Health Center (SHC) is staffed by medical and osteopathic doctors, advanced registered nurse practitioners, physician assistants, registered nurses and a full complement of other medical support personnel. Full referral service to Orlando area specialists is established.

Each health fee paying student is entitled to the benefits provided through the Student Health Services and outlined in the Student Health Services brochure. Copies of the brochure are available in the Student Health Center, the Student Affairs Suite, and are mailed to students along with the optional health and accident insurance materials.

Most office consultations and Student Health Service programs are provided without additional costs. Physical exams, laboratory tests, x-rays, medications, and some supplies require additional but significantly reduced payments which may be made with cash or credit cards.
Optional Health and Accident Insurance may also be purchased by response to the mailers or by contacting the Office of Student Affairs or Student Government. Please remember that optional health and accident insurance is not part of the Student Health Services program, but is designed to provide for health coverage needs which are beyond the scope of the Student Health Services.

Charges incurred outside the Student Health Center are the responsibility of the student. A variety of laboratory and x-ray tests are available at the Student Health Center. Testing for HIV (AIDS virus) is not done routinely in our laboratory because a program for anonymous testing is available elsewhere, and arrangements for highly confidential AIDS testing on campus may be made by calling the HIV AIDS Education office at UCF-AIDS (407) 823-2437 or Health Resource Center (407) 823-5841.

Information concerning these programs may be obtained through the Student Health Center at (407) 823-2701 during regular hours.

When the Student Health Center is not open, students can use the "Hot Line" phones at the front and back doors of the building to obtain Police Department help for urgent needs.

By Board of Regents regulation, each student must demonstrate Rubella and Rubeola immunity prior to registration. The Student Health Center cannot provide immunization services to meet this requirement. It is a pre-registration requirement and prospective students are not eligible for services at the SHC.

- Medical records are held in the strictest confidence.
- Faculty, staff and retired employees may obtain flu shots at the SHC, otherwise they are seen only on an acute or emergency basis for a fee, or as University of Central Florida worker's comp cases (including student employees) which are handled through the SHC.
- Blood drives are held several times annually on campus by the Central Florida Blood Bank. Students, faculty, staff, and family members are eligible for credits from the blood bank simply by identification and demonstrated need. Contact the Nurse Supervisor at (407) 823-5275 to make arrangements.

STUDENT UNION

The Student Union will soon become the new center of student life on campus. The Union serves the entire campus community with a wide variety of programs, services, and facilities, including fast-food restaurants, a pub, game room, computer lab, retail stores, meeting rooms, and student offices. The Union is expected to open during the 1996-97 school year. In the meantime, student services will continue to be provided in the current Student Center. The Student Union and Student Center are partially funded through Activity and Service Fees allocated by the Student Government.

Reservations for space in the Student Union or Student Center can be made at the Student Center information desk, or by calling (407) 823-2611. Student Union/Center administration is located in Student Center (SC) 205.

OFFICE OF STUDENT ACTIVITIES

The Office of Student Activities provides programs, resources, and services that enhance student life at the University. The office registers over 200 student organizations and advises the Campus Activities Board (CAB), the Consultants for Effective Leadership (CEL) and Volunteer UCF. Other programs and services sponsored through this office include the Master Calendar and the Knights of the Roundtable. Information about student activities is distributed in the Student Activities Handbook. The Office of Student Activities is located in SC 198, phone (407) 823-6471.

RECREATIONAL SERVICES

The Office of Recreational Services offers a wide variety of sports and recreational opportunities to the students of UCF and their immediate families and some opportunities to UCF faculty, staff, and the surrounding community.

These opportunities include intramural sports leagues and tournaments, organized recreation and fitness programs, unstructured open recreation, sports-related special events,
screen printing, and racquet stringing. Equipment may be checked out for use on and off campus.

The Office of Recreational Services is located next to the pool. The phone number is (407) 823-2408.

OFFICE OF STUDENT INFORMATION AND EVENING/WEEKEND STUDENT SERVICES

The Office of Student Information and Evening/Weekend Student Services is a one-stop communications network and information center committed to gathering and disseminating information to students. The office is also responsible for the administrative supervision of student affairs functions for all University students taking evening and weekend classes and for the administration and programming of the 24-hour Student Information Buzzline, (407) 823-5479. The office phone number is: (407) 823-3111.

Information Booth & Evening Student Services:
8:00 a.m. to 9:00 p.m. Monday through Thursday
second floor Administration Building,
Education Building Lobby, and College of Business Information Booth
8:00 a.m. to 5:00 p.m. Friday (same locations as above)

Weekend Student Services
10:00 a.m. to 2:00 p.m. Saturday at SG Kiosk (407) 823-2060
2:00 p.m. to 5:00 p.m. Sunday at SG Kiosk (407) 823-2060

INTERNATIONAL STUDENT SERVICES

The International Student Office provides services for all international students and resident aliens. Its central role is to assist international students and scholars attending UCF to adjust to the changing lifestyle in order to achieve their educational goals and gain a meaningful living experience in the United States. A wide range of special services is provided to the UCF international community, such as issuance of immigration forms 1-20 A/B and IAP-66, assistance in locating off-campus apartments, counseling on personal, financial, academic, and cross-cultural communication matters, advisement in immigration and tax matters, promotion of social activities, and home visits in Central Florida. Further information may be obtained from the International Office, Building 71, or by calling (407) 823-2337.

STUDENT DISABILITY SERVICES

Student Disability Services provides information and orientation to campus facilities and services, assistance with classroom accommodations, assistance with course registration, disabled parking decals, counseling, and referral to campus and community services for students with disabilities.

Services are available to students whose disabilities include, but are not limited to, hearing impairment, manual dexterity impairment, mobility impairment, specific learning disability (such as dyslexia), speech impairment, visual impairment, or other disabilities which require administrative or academic adjustments.

If a student needs special admission consideration based on a disability, the student should answer this question on the Application for Admission form and send the requested official documentation to the Admissions Office. Students who have a disability which may require special assistance also are requested voluntarily to contact the Office of Student Disability Services. All information is confidential and will be used only to assist the student. Information and assistance are available for faculty members working with students who have disabilities.

A Telecommunication Device for the Deaf (TDD) is available for hearing-impaired or speech-impaired persons with TDD’s to contact the University. Phone (407) 823-2116, TDD calls ONLY.
Further information may be obtained from the Student Disability Services Office, Administration Building, Suite 282, PO Box 160160, Orlando FL 32816-0160, Phone (407) 823-2371.

CREATIVE SCHOOL FOR CHILDREN

The Creative School for Children (Educational Research Center for Child Development) provides an educational program, including kindergarten-first grade, for children two through seven years old. The daily program is planned and conducted by degreed teachers. The program provides a wide variety of experiences in art, music, language, motor skills, science, math, social studies, perceptual development, socialization, and self-discovery. Planned and spontaneous field trips and special family programs are a part of the yearly schedule. Experiences in observation and training in academic areas are also made available to University students. Opportunities for educational research are available to University faculty and graduate students.

A Flex Time program is provided for children three through grade 3. This program provides educational activities for children who need part time schedules. This program is open daily and evenings Monday-Thursday.

The school conducts a Summer Recreational Day Camp for elementary school children during the Summer semester.

For further information, call the Creative School for Children, (407) 823-2726.
OFFICE OF VETERANS' AFFAIRS (OVA)

The Office of Veterans' Affairs (OVA) is a center for all veterans, including students who are using VA educational benefits to further their education. The office, located in room 132 of the Student Center (407) 823-2707, has a professional staff augmented by student veterans to assist in providing information concerning entitlements, filing claims to the Department of Veterans Affairs (DVA), and certifying enrollment at the University. The office also provides counseling for personal and academic concerns, tutorial assistance, and referral to various community agencies. Veterans and eligible dependents must be certified through the Office of Veterans' Affairs to receive DVA educational benefits. The office monitors the academic progress of all those receiving DVA educational benefits. All veterans and eligible dependents are urged to consult the Office of Veterans' Affairs early in the UCF admissions process.

Veterans' Benefits

Students who are entitled to DVA educational benefits must make initial contact with the Office of Veterans' Affairs. To maintain eligibility for DVA education benefits, students must adhere to the policies and procedures contained in the UCF "Student Veteran Handbook" and DVA rules and regulations. A copy of the "Student Veteran Handbook" can be obtained at the Office of Veterans' Affairs.

Students eligible for DVA education benefits, may also be eligible for a VA Deferral of Tuition and Fees. The VA Deferment due date is published in the Class Schedule each semester. STUDENTS ELIGIBLE FOR FINANCIAL AID ADEQUATE TO COVER TUITION AND FEES ARE NOT ELIGIBLE FOR THIS DEFERMENT.

For Fall and Spring Semesters, undergraduates must carry at least 12 semester hours for full-time DVA benefits, 9-11 semester hours for three-quarter time benefits, and 6-8 semester hours for half-time benefits. Five semester hours or less will be reimbursed at cost of tuition and fees or quarter-time depending on DVA Chapter.

Students intending to enroll simultaneously at UCF and another institution have the option of receiving DVA benefits, but first must consult with the Office of Veterans' Affairs and obtain a Transient Permission Form from their academic advising office.

Veterans and eligible dependents who wish to change their major, or pursue a double major or dual degree, or add a minor may also receive VA benefits but must make arrangement through the Office of Veterans' Affairs before taking any of the new courses. This includes a minor in Military Sciences. Note: some majors have room in the program for extra electives that can be filled with courses for a minor or for another major.

In order to receive veterans' educational benefits, students must maintain satisfactory academic progress and conduct. Accordingly, benefits will be terminated for individuals who are disqualified, excluded, suspended, or expelled from the University. If reinstated by the University following disqualification, exclusion, suspension, or expulsion, the veteran or eligible dependent must contact the Office of Veterans' Affairs to have their DVA educational benefits re-started. Individuals placed on academic probation will continue to receive benefits as long as a 2.0 or higher GPA is earned each semester. For students who fail to maintain satisfactory academic progress, benefits will be terminated once the required semester hours of course work for the program of study are completed, regardless of the GPA or eligibility for graduation.

Veterans and eligible dependents may also draw VA benefits during the periods of eligibility while on cooperative education assignments. The recipient may choose to receive benefits at the "co-op rate," which is approximately 80 percent of the entitled monthly DVA benefit. Payment is received during both the on-campus semester and the off-campus work terms. Contact the Office of Veterans' Affairs at (407) 823-2707 for more specific benefit information on Cooperative Education.

See also:
Academic Exploration Program Office of Minority Student Services (OMSS)
Student Academic Resource Center (SARC)
UNDERGRADUATE ADMISSIONS

Director: Susan McKinnon, AD 161G, Phone (407) 823-3000

The Undergraduate Admissions Office coordinates the admission and enrollment process of all undergraduate first-time-in-college, transfer, non-degree, and non-Florida state university transient students to the Orlando, Daytona, and Brevard campuses. The office seeks to identify, attract, and enroll the desired number of talented, diverse, and academically qualified students who can contribute to and achieve academic growth from the multitude of programs offered through the University and community we serve. Through managed communication, a data management system and scholarships, the Office is able to attract students who are motivated, challenged and have the desire to achieve academic prominence.

Office functions include administering programs for prospective students, such as campus tours, open houses, area receptions, high school and community college visits. Students, parents, high school and community college counselors are consulted with on a continual basis regarding all aspects of admissions and general information on the academic, social, and living components of the University. The Office is committed to providing accurate and timely information to all constituents.

CAMPUS TOURS

Tours of campus are available to all interested individuals and are an excellent way to view first hand the facilities offered at the University. Campus tours are conducted by trained student volunteers and last approximately 45 minutes. Appointments are not necessary.

Tours leave from the information booth on the second floor of the Administration Building at 11:00 a.m. and 2:00 p.m., Monday-Friday, except holidays. Group tours or special requests may be scheduled by calling Undergraduate Admissions at (407) 823-5592.

APPLICATION FOR ADMISSION

All interested applicants must complete the state university system application for admission, and include a 20 dollar (US$), non-refundable application fee. Applicants should also request official transcripts from each educational institution attended to be forwarded directly to the Undergraduate Admissions Office. Students should apply several months in advance of an anticipated start date. Mail admission applications to: Undergraduate Admissions Office, University of Central Florida, P.O. Box 160111, Orlando, FL 32816-0111. Questions concerning admission requirements and applications should be forwarded to the same address or by calling (407) 823-3000.

Applications for admission will be accepted up to one year prior to the start of the term desired. The priority application deadlines are July 15 for the Fall semester, November 15 for the Spring semester, and April 15 for the Summer term. The priority deadline for most financial assistance and scholarships is March 1. Information and an application for university housing are sent at the time of acceptance into the University. Requests for housing are subsequently reviewed by date of the receipt of the housing application.

The University encourages applications from qualified persons of both sexes and from all cultural, racial, religious, and ethnic groups. The University does not discriminate on the basis of disability for admission.

Applicants should understand that this catalog outlines minimum requirements to be considered for admission and that admission to the University is selective. The satisfaction of minimum requirements does not automatically guarantee admission. Conversely, Florida Board of Regents (BOR) policy allows the University to admit students to any semester as exceptions to the minimum requirements. The Undergraduate Admissions Office and the Admissions and Standards Committee are responsible for the admission of all undergraduate students under this policy.

DOCUMENTATION REQUIRED FOR ADMISSION

All supporting admissions documents must be received directly from the issuing institution or testing agency to be considered official. All final supporting documents (official transcripts and test scores) must be received by Undergraduate Admissions no later
than 20 days after the first day of classes. Those students who have not submitted completed records by the deadline will be placed on administrative hold. Students with incomplete records will not be permitted to register for a future term until all transcripts and other required documentation have been received. Students whose records are not satisfactory may be placed on academic probation, admission status changed to non-degree or transient, and may, in some cases, be withdrawn from the University. In addition to the required documentation mentioned above, students must have a satisfactory conduct record at all schools attended.

REACTIVATION
Students who have submitted an application to UCF and did not attend, may reactivate the original application within one year of the term for which they first applied. To update the application, students should request and complete a reactivation form by the published deadline. This form is available in the Undergraduate Admissions Office or by calling (407) 823-3000.

LIMITED ACCESS PROGRAMS
Admission to the University does not guarantee admission to a limited access program, and some majors at the University limit the number of students who may enroll. Limited access status is justified when student demand exceeds available resources, such as faculty, instructional facilities, or equipment, or when specific accrediting requirements apply. Criteria for admissions are selective to include: indicators of ability and indicators of performance, creativity, or talent to complete required work within the program. For admission to limited access programs, community college transfer students with Associate of Arts degrees from Florida public community colleges are given equal consideration with UCF students. Admission to such programs are governed by A-10.24 (8), the Articulation Agreement, and by 6C-6.01, FAC, of the Board of Regents rules.

ORIENTATION
All undergraduate degree-seeking students are required to attend orientation prior to enrollment. Information on orientation is mailed to all students once accepted to the University.

ADMISSION CATEGORIES
Students may make application to the University in one of the following categories:
A. Freshman (first-time-in-college)
B. Dual Enrollment (includes early admission and dual enrollment, on- or off-campus)
C. Transfer
D. Second Bachelor's Degree
E. International (non-U.S. citizens who possess a valid visa)
F. Transient (one term enrollment only, not from a Florida public university)
G. Non-Degree Seeking

IMPORTANT: Furnishing false or fraudulent statements or information in connection with an application for admission or residence affidavit may result in disciplinary action, denial of admission, and invalidation of credits or degrees earned.

FRESHMAN APPLICANTS
Any first-time-in-college (FTIC) student who meets the minimum admission requirements is encouraged to submit an application. The University will do everything possible to accept all qualified applicants who apply by the priority deadline date. If the number of qualified applicants exceeds the number the University is permitted to enroll, admission will be on a selective basis. An applicant's total high school record including grades, test scores, educational objective, and pattern of courses completed, counselor recommendations, and personal achievements and honors will be considered in the selection process. An application pool will be maintained when
the number of applicants exceeds the number of qualified students to whom admission may be offered. Based on the number of cancellations received, selections will be made from the applicant pool.

The University reaffirms its Equal Educational Opportunity (EEO) commitments and seeks to increase the enrollment of minority students.

High School Diploma

Freshmen who are applying for admission to the University are required to have a high school diploma or a General Equivalency Diploma (GED). Foreign diplomas must meet the requirements specified in Florida Statutes, section 229.814 and must be evaluated by Josef Silny & Associates, Inc. or World Education Services. A "document-by-document" evaluation of all foreign high school credentials, along with a computed grade point average, is required from either of these two agencies.

Entrance Examination Scores

All applicants for admission must submit test scores from the Scholastic Aptitude Test (SAT) or from the American College Test (ACT). In addition, any student whose native language is not English must submit a Test of English as a Foreign Language (TOEFL) score.

High School Academic Units and Grade Point Average

All applicants must have earned a minimum number of high school academic units (year-long courses which are not remedial in nature) as shown in the table below to be considered for admission. A grade point average (GPA) will be computed only on academic courses. Grades in honors courses, advanced courses, International Baccalaureate, and Advanced Placement (AP) courses will be given additional weight in the computation of the academic GPA. The high school academic unit requirements are as follows:

**ACADEMIC SUBJECT** | **UNITS REQUIRED**
--- | ---
English (three of which must have included substantial writing) | 4
Mathematics (at or above the Algebra I level) | 3
Natural Science (two of which must have included substantial laboratory requirements) | 3
Social Science (included: history, civics, political science, economics, sociology, psychology, and geography) | 3
Foreign Language (both credits must be in the same language) | 2
Additional academic electives from the above five subject areas and courses recommended by the Florida Association of School Administrators, or other groups, and courses recommended by the Articulation Committee, and approved by the Department of Education. | 4

**TOTAL** 19

Applicant Eligibility

Eligibility for FTIC admission is subject to satisfactory receipt of all items required in the admission process. All applicants must meet the following State University System (SUS) minimum eligibility index standards:

If the High School GPA is: | Test scores must be:
--- | ---
| SAT | ACT
2.0 | 1140 | 25
2.1 | 1110 | 23
2.3 | 1060 | 22
2.4 | 1030 | 22
2.6 | 1000 | 21
2.7 | 990 | 21
2.8 | 980 | 20
2.9 | 970 | 20
3.0 | * | *
* Academic eligibility for admission is determined by a 3.00 or better GPA and submission of admission test scores.

Admission into the University is limited by space availability. The degree of competition for space depends on the number and qualifications of those who apply for admission. To increase the chance of admission, high school students should present credentials which are stronger than the minimum requirements for consideration as listed above. If the number of qualified applicants exceeds the number that the University is able to enroll, a waiting list will be established.

A student applying for admission who does not meet established requirements may bring to the University other important attributes or special talents and may be admitted if, in the judgment of the Admissions and Standards Committee, the student can be expected to do successful academic work. The University will provide an individual learning plan for each student admitted under this alternative.

Students who have been enrolled in dual enrollment courses will be required to have a "C" average (2.0 GPA) for all dual enrollment course work attempted.

Any student admitted without two years of one foreign language in high school or the equivalent (minimum 8 semester hours) at the post-secondary level, must satisfy this admission requirement prior to earning 60 semester hours of credit.

DUAL ENROLLMENT APPLICANTS

High School students who have demonstrated exceptional academic ability may be permitted to enroll as University students while completing their high school programs. There are three types of dual enrollment programs:

1. Early Admission is for students who have completed their junior year in high school and would like to enroll at the University as a full-time student for their senior year of high school. Students must submit an application for admission by the published deadline. In addition the following information is required:
   - official copy of high school transcripts
   - official copy of Scholastic Aptitude Test (SAT) or American College Test (ACT)
   - written letter of recommendation from high school counselor
   - written permission from parents or legal guardian
   - personal interview with the Undergraduate Admissions Office

2. Dual Enrollment On-Campus is for students who wish to dual enroll on a part-time basis, taking one or two courses on campus, while completing their high school course work. Students must submit an application for admission by the published deadline, as well as all items listed above.

3. Dual Enrollment Off-Campus is for students whose high schools sponsor on-site courses at specific high schools. Students earn both high school and college credit for successful completion of course work. Each respective high school selects students who are eligible to participate in these programs. Contact your high school guidance office for detailed information.

TRANSFER APPLICANTS

Transfer applicants are encouraged to review the current edition of UCF's Transfer Counseling Manual available in Florida community college counseling offices. The manual gives the recommended community college course requirements for all majors as well as other helpful information. All college transfer applicants must have a grade point average of at least 2.0 on a 4.0 system for all college-level academic course work attempted, be in good standing (minimum 2.0 GPA) and eligible to return as a degree-seeking student to the last institution attended. UCF does not compute plus or minus grades when figuring the college GPA. In addition, credit for grade forgiveness is awarded only when it is used as part of an Associate of Arts degree from a Florida public community college or state university, with the exception of courses taken previously at UCF. Any student whose native language is not English must provide a Test of English as a Foreign Language (TOEFL) score. A TOEFL score of 550 or higher is required for admission.
Although all college-level course work transferred from a regionally accredited institution is shown on the UCF transcript, applicability of the course work toward a degree is determined by the college or department of the major.

**Transfer Applicants with Fewer Than 60 Credit Hours**

All college transfer applicants with fewer than 60 semester hours of acceptable credit must meet freshman high school unit entrance requirements, the high school academic grade point average, and minimum SAT or ACT scores (as listed on previous page); have at least a 2.0 GPA on a 4.0 system for all college-level academic courses attempted, and be in good standing (minimum 2.0 GPA) and eligible to return as a degree-seeking student to the last institution attended.

**Transfer Applicants with an A.A. Degree from a Florida Public Institution**

Admission of Associate of Arts (A.A.) degree graduates from Florida public community colleges and Florida state universities will be governed by the Articulation Agreement between the state universities and public community colleges of Florida, as approved by the Board of Regents and the State Board of Education. The agreement states that except for limited access programs, admission as a junior to the upper division of the University shall be granted to any graduate of a state-approved Florida community college or State University System institution who transfers directly to UCF, who has completed the university parallel program, and who has received the Associate of Arts degree which included all of the following:

- At least 60 semester hours of academic work exclusive of occupational courses and basic required physical education courses.
- An approved general education program of at least 36 semester hours.
- A grade point average of at least 2.0 on a 4.0 system for all college-level academic courses attempted. (Only the final grade received in courses repeated by the student shall be used in computing the average.)
- One year of college instruction in a single foreign language. (This requirement applies to those students without the required two units of foreign language in high school.) Students who receive an Associate of Arts degree from a Florida public community college or university but have not met the foreign language requirement and do not qualify for exemption as defined below may be admitted to the University on a provisional basis.
- Students who received an Associate of Arts degree from a Florida public community college prior to September 1, 1989.

Any student admitted without two years of one foreign language in high school or the equivalent (minimum 8 semester hours) of such instruction at the post-secondary level, must satisfy the admission requirement prior to graduation.

Florida Community College Associate of Arts graduates are guaranteed the following rights under the Statewide Articulation Agreement (State Board of Education Rule 6A-10.024):

1. Admission to one of the ten (10) state universities, except to "limited access" programs (programs that have additional admission requirements).
2. Acceptance of at least 60 credit hours by the state universities toward the baccalaureate degree.
3. Adherence to university requirements and policies based on the catalog in effect at the time the student first entered a community college, provided the student maintains continuous enrollment.
4. Transfer of equivalent courses under the Statewide Course Numbering System.
5. Acceptance by the state universities of credit earned in accelerated programs (e.g., CLEP, AP, PEP, Dual Enrollment, Early Admission and International Baccalaureate).
6. No additional General Education Core requirements.
7. Advanced knowledge of selection criteria for limited access programs.
8. Equal opportunity with native University students to enter limited programs.

Should any guarantee be denied, students have the right of appeal through the Office of Articulation and Community College Relations.

Transfer Applicants - More than 60 hours, have not received an A.A. Degree from a Florida Public Institution

Undergraduate transfer applicants who wish to be admitted as upper division students must have met all of the following requirements:

- A minimum of 60 semester hours of academic course work.
- The English and Mathematics requirements of the Gordon Rule.
- Passing scores on three of the four parts of the College Level Academic Skills Test (CLAST).
- A minimum of eight semester hours of college instruction in a single foreign language. (This requirement applies to those students without the required two units of a single foreign language in high school.)

SECOND BACHELOR'S DEGREE APPLICANTS

Second Bachelor's Degree applications are processed by the Undergraduate Admissions Office or Registrar's Office. Guidelines for which office students should make application to are outlined as follows:

A. Students who have never attended the University of Central Florida as degree seeking undergraduate students must apply to the Undergraduate Admissions Office. Students should complete the regular undergraduate application form.

B. Students who have attended the University of Central Florida as a degree-seeking undergraduate students apply through the University Registrar's Office. These students complete the Readmission Application form.

Credits from a Previous Baccalaureate Degree

Graduates from other regionally accredited four-year U.S. institutions who apply for admission to work toward a second undergraduate degree must meet the regular requirements of the University (as defined in the "Undergraduate Degree Requirements" section of this catalog). A baccalaureate degree or higher from another accredited four-year US institution satisfies the General Education Program requirements and also provides exemption from the foreign language requirements for admission and graduation.

INTERNATIONAL APPLICANTS

The University of Central Florida is authorized under Federal law to enroll non-immigrant alien students. The following is required for admission:

- International student applications and records required for admission must meet all applicant deadlines.
- All credit from foreign institutions must be evaluated through either Josef Silny and Associates, Inc. or World Education Services. A course-by-course evaluation should be requested for any college-level credit; a document-by-document evaluation along with a grade point average is required for high school credit.
- All applicants whose native language is not English must submit an official score report from the Test of English as a Foreign Language (TOEFL). Undergraduates who have not earned an Associate of Arts degree, or completed the general education requirements (as defined in the Articulation Agreement) from a Florida public community college and passed at least three parts of the CLAST must have a minimum TOEFL score of 550.
• All students who have not earned at least 60 semester hours of transferable credit must also submit an official SAT or ACT score along with a high school transcript evaluated through Josef Silny & Associates Inc., or World Education Services.

• Applicants must file a Confidential Financial Statement with the International Student Services Office confirming availability of finances for the first year of study. This statement must be on file prior to the issuance of the appropriate immigration papers.

The Undergraduate Admissions Office may require additional documents and/or transcripts before an admission decision is made.

International Student Mandatory Health and Accident Insurance

Each international student accepted for admission shall, prior to registration for classes, submit proof of compliance with the State University System of Florida's mandatory health and accident insurance requirement.

Minimum coverage limits may be obtained from the office of International Student Services. Written proof of insurance must also be provided.

If insurance is issued by a foreign carrier or underwriter, a statement must be provided in English to assure that the policy meets the State of Florida minimum levels of insurance coverage.

The University reserves the right to refuse registration to any international student who fails to comply with this insurance requirement or is unable to supply satisfactory proof of insurance.

The University also reserves the right to withdraw from classes any international student who fails to maintain insurance coverage, cancels insurance coverage or avoids in any way the responsibility to comply with the insurance requirement.

TRANSIENT STUDENT APPLICANTS

Students in good standing with a 2.0 grade point average at the last regionally accredited institution attended who wish to enroll for one term at UCF may be considered for admission as transient students. Such enrollment terminates at the end of one term and does not presuppose regular acceptance to the University. A transient student must submit an official transcript from the last institution attended. Transient student applications must be received by the appropriate application deadline. If a student's last school of attendance is a Florida public university, please refer to the Records section of this catalog. Transient students are not eligible to receive financial aid.

NON DEGREE-SEEKING APPLICANTS

This classification allows qualified students to enroll in selected courses at the University without satisfying requirements for admission to degree-seeking status. Successful completion of courses while in this classification does not provide a basis for regular admission at a later date. Non degree-seeking status is granted in exceptional cases only, and will usually be reviewed by the Admissions and Standards Committee.

The following regulations will apply to non degree-seeking students:

1. Students are required to provide evidence of their educational qualifications for attending classes in order to meet the intent of this enrollment classification.

2. Non degree-seeking students are subject to the same rules and regulations as degree-seeking students.

3. Registration is permitted on a space-available basis.

4. A maximum of 15 undergraduate baccalaureate semester hours earned as a non degree-seeking student may be applied toward a degree if a non degree-seeking student is later accepted as a baccalaureate student.

5. International students may not register as non degree-seeking since immigration regulations prevent foreign nationals from enrolling without admission to a degree or certificate program.
6. Non-degree students are not eligible to receive financial aid nor to participate in intercollegiate sports.

TRANSFER CREDIT - ALL APPLICANTS

All grades from a regionally accredited college or university in transfer courses that are normally a part of a baccalaureate degree program are shown on the student's permanent UCF record.

Credit is not awarded based on job descriptions, CLEP scores below the 50th percentile, life experience, or course work that is non-academic.

Accredited Institutions

For the purposes of this catalog "Accredited Institutions" means those institutions accredited by any of the following six regional associations:

- New England Association of Schools and Colleges
- Middle States Association of Colleges and Secondary School, Commission on Institutions of Higher Education.
- North Central Association of Colleges and Schools, Commission on Colleges and Universities.
- Northwest Association of Secondary and Higher Schools, Commission on Higher Schools.
- Southern Association of Colleges and Schools.
- Western Association of Schools and Colleges Accrediting Commission for Senior Colleges and Universities and Accrediting Commission for Junior Colleges.

The accreditation status of all foreign institutions must be evaluated through either Josef Silny and Associates, Inc., or World Education Services.

General Education Transfer Credits

Transfer students from Florida public community colleges or universities may satisfy the General Education Program requirements of UCF by completing the general education program prescribed by that institution. Transfer applicants with incomplete general education programs will have their credits evaluated on a course-by-course basis.

Credits from Private and Out-of-State Institutions

Transfer credit from private junior and senior colleges and out-of-state institutions will be evaluated on a course-by-course basis. Each student must submit the necessary petition(s) to the appropriate office(s) to determine which courses will transfer with regard to degree progress at UCF. Transfer courses which meet the requirements of the General Education Program and the Gordon Rule are determined through the process described in this catalog under "University Degree Requirements." Each College has different petition procedures, but generally the petitioning of transfer courses for satisfaction of college and major requirements should be done during the second full term of the student's residency at UCF so the accepted transfer courses are clearly understood by the student and the faculty advisor early in the student's program.

Credits from Military Service School Courses

Completed military service school courses may be evaluated on the basis of the recommendations of the American Council of Education (A.C.E.) when official credentials have been properly presented. Credit may be granted when courses are equivalent to those offered by the University. However, recommendations by the A.C.E. are not binding upon the University.

Military credit is not accepted through transfer unless used as part of an Associate of Arts degree from a Florida public community college. Even though military records may have been evaluated by another regionally accredited institution, it is important to have official credentials sent to the University for evaluation. Credit is not awarded for basic training or for DANTES credit.
ADMISSIONS AND STANDARDS COMMITTEE

The Admissions and Standards Committee is composed of representatives throughout the University including representatives from the Faculty Senate, Minority Student Services, Student Affairs, Enrollment and Academic Services, the Student Body, and Undergraduate Admissions. This committee normally meets on a regular schedule to review marginal cases and to consider the appeals of applicants. A letter of explanation to the Chair, Admissions and Standards Committee is recommended in establishing the basis for an appeal. Students have the option of appealing in person before the Admissions and Standards Committee.

STUDENT HEALTH HISTORY

Each student accepted for admission is required to submit a UCF Student Health History form prior to registration. Documentation of appropriate immunization for measles and rubella is required. Please refer to the Records section of the catalog for complete details.
OFFICE OF THE UNIVERSITY REGISTRAR

University Registrar: Dr. John F. Bush, AD 161L, Phone (407) 823-5454

The Office of the University Registrar is the official custodian of permanent academic records and is responsible for the maintenance and security of student records for all past and currently enrolled students at the University of Central Florida. The University Registrar is also responsible for registering students, readmitting students, determining residency reclassifications, accepting transfer credit for previously enrolled students who attend another college or university during the completion of their degree program with the University, maintaining students' address and majors, preparing and distributing enrollment certifications and transcripts, commencement and graduation, and providing services and information to students, faculty, and the administration regarding student and course enrollment data. The Registrar's Office is located in the AD 161, telephone (407) 823-3100.

ADDRESS CHANGES

The address the University utilizes for students is taken from the application for admission or readmission. It is the students' responsibility to make appropriate changes to their address. Address changes can be made in the Registrar's Office or at the Kiosk located on-campus. Address changes can also be made by writing the Registrar's Office. Written requests must be signed and the student number provided.

AUDIT REGISTRATION

Auditors are those wishing to attend classes without receiving academic credit. To audit a class, the student must file a regular application with Undergraduate or Graduate Admissions and be accepted as a degree-seeking or non-degree seeking student. Audit forms are available in the student's college advising office and Registrar's Office, AD 161. Audit students meet with the instructor of the course they wish to audit for signed permission to audit the class. Registration for audit students is held during the last hour of Regular Registration or at any time during Add/Drop. (Students must be registered for at least one course, for either credit or audit, by the end of regular registration, or a late registration fee will be assessed.) See instructions given in the Schedule of Classes. Students registering for credit during regular registration, late registration, or add/drop may not change to audit status, but must remain in the course or withdraw through normal withdrawal procedures.

REGISTRATION

During each academic semester, registration is held for all currently enrolled, degree-seeking and non-degree seeking students for the following term. Registration consists of Advanced Registration which is normally held immediately after the mid-term of the current semester for the next semester, Regular Registration which is normally held one or two days immediately before the start of the semester, and Add/Drop which is held during the first week of classes for each semester. Spring Advanced Registration is held following midterm for the Fall semester. Summer and Fall Advanced Registration are held concurrently immediately following the mid-term of the Spring semester. Registration is available by telephone, in the college advising offices, and at walk-by. The dates and times of each of these registration periods are published in the Schedule of Classes which is published for the Summer and Fall semesters and Spring semester.

ENROLLMENT CERTIFICATIONS

To confirm enrollment in the University students should come to the Registrar's Office, AD 161. A picture identification is required.

GRADE CHANGES

The changing of a grade that has been previously assigned by a faculty member can only be changed by that faculty member. Change of grade requests are submitted by the academic department with dean's approval.
CHANGE OF MAJOR
The University assigns the major that the student indicated on the application for admission or readmission. It is the student's responsibility to make appropriate major changes. Major changes can be made in the Registrar's Office or by mail. Written changes must include the student's identification number and signature.

GRADE FORGIVENESS
Grade forgiveness forms are available in the Registrar's Office, AD 161. This request must be submitted not later than the last day of Add/Drop for the term in which the student has registered for the course being repeated. Grade forgiveness is limited to two courses during the students' postsecondary career.

HOLDS
Holds may be placed on students records, transcripts, grades, or registrations because of financial or other obligations to the University. Satisfaction of the hold is required before a release can be given. In order to obtain an immediate release on financial holds, payment must be made in cash, cashier's check or money order.

READMISSION
An application for readmission is required if a student is academically dismissed from the University (disqualification or exclusion) or if the student has not enrolled for two consecutive terms (not including summer). See section on Readmission as an exception to University policy in this publication. The Readmission Application is available in the Registrar's Office, AD 161.

If the student has attended another regionally accredited institution, the student must request an official transcript be sent to the Registrar's Office. If the student was previously admitted to a limited access program, they will be placed in "pending" status of that major and must be readmitted to the program by the department or college. If the student has left the State of Florida for at least one year, the student may be required to complete the Florida Residency Affidavit.

Any readmitted student whose all-college or UCF cumulative grade point average is less than 2.0 (C average) at the time of last enrollment with the University, will be readmitted on academic probation. All applicants seeking readmission who have attempted course work at another regionally accredited institution since last attending the University will normally be required to be in good standing (2.0 grade point average) with no allowance for grade forgiveness and be eligible to return to the last institution attended.

Students who have previously attended the University of Central Florida as degree-seeking students and wish to pursue a second bachelor's degree, apply by completing the Readmission Application. This application is available from the Registrar's Office.

SCHEDULE OF CLASSES
The schedule of classes is published two times a year. One edition contains the Summer and Fall terms and the second edition contains the Spring term. The schedule of classes is distributed by the colleges and departments.

RESIDENCY RECLASSIFICATION
Enrolled students who are classified as non-Florida residents for tuition purposes and who believe they may qualify for in-state tuition, may submit a Residency Reclassification form available in the Registrar's Office. Supporting documentation is required to substantiate residency for tuition purposes.

If denied Florida residency for tuition purposes by the Registrar's Office, the student may appeal. Information on the appeal process can be obtained from the Registrar's Office, AD 161, (407) 823-3100.

SENIOR CITIZEN AUDIT
Senior Citizens (60 years of age or older) who have been Florida residents for one year as of the first day of classes, may enroll as audit students by completing the Senior Citizen Audit
form. This form is available from the Registrar’s Office, AD Bldg. 161. A Florida Residency Affidavit is required to establish Florida residency. The emergency contact portion (Section A) of the Student Health History must be filed prior to registration. All senior citizen audit students register on a space-available basis.

Dates for Senior Citizen registrations are found in the Schedule of Classes. It is necessary to complete the required forms no later than the last day of Add/Drop for the semester in which a Senior Citizen wishes to enroll as an audit student.

STATE EMPLOYEE AND STEP (NATIONAL GUARD) REGISTRATION

State of Florida employees and State Tuition Exemption Program (National Guard) students register on the last day of regular registration. These registrations are on a space-available basis only. State employees are required to submit the Employee Tuition Fee Waiver Form which may be secured from Personnel Services, Administration Building 230. Registrations before the time specified in the Schedule of Classes will result in the student being assessed regular fees.

STATE UNIVERSITY SYSTEM OF FLORIDA (SUS) TRANSIENT STUDENTS

An SUS transient student is a student who is enrolled and seeking a degree from one of the other public Florida universities and wishes to take courses with the University of Central Florida. Students must complete the SUS Transient Application which is available at all SUS institutions. No application fee is required. The SUS Transient application must be completed each semester and should be mailed or delivered to the Registrar’s Office, AD 161. Students should contact the Registrar’s Office for registration information.

UCF STUDENTS ATTENDING ANOTHER STATE UNIVERSITY SYSTEM OF FLORIDA INSTITUTION

UCF students who wish to attend another SUS institution as a transient student may secure the SUS Transient Application form from the Registrar’s Office but must see their academic department and college advising office for approval.

UCF STUDENTS ATTENDING A NON-SUS INSTITUTION

Degree-seeking UCF students who wish to enroll at a non-SUS post-secondary institution must complete the Transient Approval Form. This form is available from the department or college of their major. The permission of the department or college is necessary for work attempted at another institution to be insured of transferability.

STUDENT HEALTH HISTORY

Each student accepted for admission or readmission is required by the Florida Board of Regents to submit a Student Health History form, provided by the University. Documentation of appropriate immunization for measles and rubella is required. Where physician examinations are required, they must be signed by a doctor of medicine or a doctor of osteopathy.

Students 40 years old and over are exempt from the immunization requirement, but must submit a signed Student Health History form. The University reserves the right to refuse registration to any student whose health record is incomplete, or whose health report or report of medical examination indicates the existence of a condition which may be harmful to members of the University community. The Student Health History form is normally mailed to the student at the time of acceptance. All Student Health History form should be mailed to the Registrar’s Office, AD 161, P. O. Box 160114, Orlando, FL 32816-0114.

TRANSCRIPT REQUESTS

Requests for transcripts are made in the Registrar’s Office, AD 161. A student’s academic record can be released only upon written authorization signed by the student. No telephone or FAX requests can be honored. Transcripts cannot be released if the student is on Hold due to a financial obligation to the University.
Transcript requests should include the student's full name, student number, and must have the student's signature. Indicate the name and complete address to whom transcripts are to be sent. If final grades or degree statement are needed, indicate that the transcript request is to be held until all data are posted.

The first two (2) transcripts are provided at no cost. There is a $5 per transcript charge for each subsequent transcript request. A check or money order (made out to UCF) should be enclosed with the transcript request. Cash payments can only be accepted by the Cashier's Office during regular business hours.

Written requests for transcript should be addressed: Registrar's Office, Attention: Transcripts, P. O. Box 160114, Orlando, FL 32816-0114.

STUDENT RECORDS

Student records submitted to the University become the property of the University and cannot be returned to the student or released to a third party. Copies of student records can be released if a written request signed by the student is received by the Registrar's Office. Student records are stored in paper form in the vault in the Registrar's Office. Once the student has been absent from the University for three terms their records are transferred to optical disk storage and the paper copies are destroyed.

WITHDRAWALS

Students may withdraw from courses after the end of Add/Drop. The withdrawal time period begins the first business day after Add/Drop through the date specified in the University Calendar as the deadline for withdrawals. This is normally the mid-point of the semester. Students wishing to withdraw from a class must present their picture identification card and sign the withdrawal form in the Registrar's Office, Administration Building 161. Withdrawals may be accomplished by mail but mail requests must be postmarked no later than the published date for withdrawals which can be found in the University Calendar. Students who wish to withdraw after the published deadline must file a petition in the Enrollment and Academic Services Office, AD 210, (407) 823-2691.
TUITION AND FEES

SCHEDULE OF FEES

A student's basic expenses at the University will be for registration and course related fees, room and board, textbooks, and miscellaneous items.

Required fees are established by the Board of Regents and the Florida State Legislature and are subject to change without notice. Fees are affected by residency status. Information on Florida residency for tuition purposes is on the following page. All University fees must be paid at or before the end of the Add/Drop registration period. Tuition not paid by the payment deadline date for each term may result in late fees or class cancellation.

The following schedule applies to all University of Central Florida students:

**General Fees and Costs**

*(All fees are subject to change without notice)*

A. Application fee. Must be paid by US check or money order (required with all applications for admission to the University and not refundable).........................$20.00

B. Registration Fees per semester are shown below for main campus, area centers, and continuing education courses. Zero hour registration students are assessed one credit hour at the Florida Resident Tuition rate at the course level for which the student is registered.

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**ESTIMATED 1996-97 Fee Schedule**

<table>
<thead>
<tr>
<th>Category</th>
<th>Florida Resident U-Grad (0000-4999)</th>
<th>Florida Resident Graduate (5000-7999)</th>
<th>Non-Florida Resident U-Grad (0000-4999)</th>
<th>Non-Florida Resident Graduate (5000-7999)</th>
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<tbody>
<tr>
<td>Matriculation</td>
<td>$40.75</td>
<td>$93.66</td>
<td>$207.27</td>
<td>$351.51</td>
</tr>
<tr>
<td>Building Fee</td>
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<td>2.44</td>
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<tr>
<td>Financial Aid Fee</td>
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<td>4.68</td>
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<tr>
<td>UCF Activity &amp; Service Fee</td>
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<td>6.95</td>
<td>6.95</td>
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<td>6.50</td>
<td>6.50</td>
<td>6.50</td>
</tr>
<tr>
<td><strong>Total per Hour</strong></td>
<td><strong>$60.99</strong></td>
<td><strong>$116.55</strong></td>
<td><strong>$235.83</strong></td>
<td><strong>$387.29</strong></td>
</tr>
</tbody>
</table>

Other Fees:
- UCF Health Fee (per term-main campus-course offerings) | 47.30 | 47.30 | 47.30 | 47.30 |
- UCF Health Fee (summer term-main campus-course offerings) | 35.20 | 35.20 | 35.20 | 35.20 |
| UCF Mat & Sup Fee (approved courses only-varies per course) | 2.00-15.00 | 2.00-15.00 | 2.00-15.00 | 2.00-15.00 |
| Late Registration Fee | 50.00 | 50.00 | 50.00 | 50.00 |
| Late Payment Fee | 50.00 | 50.00 | 50.00 | 50.00 |
| Returned Check Fee | 20.00 or 5% | 20.00 or 5% | 20.00 or 5% | 20.00 or 5% |

C. **Room and Board** (Based on accommodations and meal plan selected)
- Residence Hall Rooms (per semester) | $985-$1495 |
- Board (meal plans, per semester) | $825-$975 |
- Charge for late housing payment | $50.00 |

D. **Books and supplies** (estimated) per semester | $300.00 |
E. Registration Late and Late Payment Fees
   - A $50 Late Registration fee will be assessed all students who register during the Late Registration period and pay fees by the deadline.
   - A $50 late payment fee will be assessed all students who pay fees after the deadline.
   - Both a $50 late registration fee and a $50 late payment fee will be assessed all students who both register late and pay fees after the deadline.
   All payments accepted after drop cards are mailed, approximately the third week of classes, must be cash, cashier’s check or money order. Personal checks will not be accepted.

F. Vehicle Registration (required of everyone operating a motor-powered vehicle on campus) per calendar year for full-time, part-time students, and courtesy students from other institutions. Student’s decal fee $49.00

G. Student Health Fee
   Mandatory fee assessed to all students except those enrolled at area campuses, (Brevard CC, SOC, Daytona Beach CC) and exclusively in Continuing Education courses.
   Fall & Spring Semesters $47.30
   Summer Semester $35.20

H. Campus Card Fee
   $10.00

I. Campus Card replacement
   $15.00

J. Course Related fees - fee per student on specific course(s) $2.00-$15.00

K. Return Check Charge
   Service charge on all returned checks is $20.00 or 5%, whichever is greater, and results in the loss of check cashing privileges.

L. Transcripts - First two are provided at no charge. Each additional copy $5.00

Appeals
   Students who wish to appeal a Late Registration, and/or late payment, or return check service charge fee may make their appeal to the Fee Appeals Committee by initiating a student petition (Form 41-561). This form can be obtained from Enrollment and Academic Services, Student Affairs, University Cashier, or the Student Accounts Section of Finance and Accounting. Students must submit their petitions to Student Accounts, Room 112, Administration Building; and may appear (not mandatory) before the Committee.

Check Cashing
   The University Bookstore cashes personal checks not exceeding $50.00. The University collects a $20.00 service fee, or five percent (5%) of the check amount, whichever is greater, for personal checks, drafts, or orders which are returned as uncollectible. Future check-cashing privileges may be denied.

Past-Due Accounts
   All financial obligations to the University must be met if good standing is to be maintained. Failure to meet obligations can result in the withholding of grades and transcripts, and denial of registration and readmission to the University. The services of a professional collection agency and recourse to the courts may also be invoked if deemed necessary. All costs of collection, including attorney’s fees, are borne by the debtor.

Payment Procedures
   Payment may be made in the Cashier’s Office, AD 108, from 8:30 a.m. to 6:30 p.m. on Monday, and 8:30 a.m. to 4:00 p.m., Tuesday through Friday. A photo ID (if paying by check) is required.
   Payments (NO CASH) may be placed in the Cashier’s night depository; INCLUDE SOCIAL SECURITY NUMBER ON CHECK OR MONEY ORDER.
Payments mailed must be postmarked by the due date to be considered on time and not be charged the late fee. DO NOT SEND CASH.

Address Payment to: University Cashier
University of Central Florida
P.O. Box 620000
Orlando, FL 32891-8449

The penalty for Late Payment is $50.00. Do not assume your registration will be canceled if you do not pay fees or attend classes.

Payment guidelines for off-campus registration are contained on the off-campus registration form.

Refund Of Fees

A refund of fees will be made under the following conditions upon presentation at the Student Accounts Office of a Certification of Withdrawal issued by the Registrar. No refunds will be made under this policy except upon proper application. Any debts to the University will be deducted up to the full amount of the refund.

A. A full refund when:
   1. Any class is dropped before the end of the Add/Drop period.
   2. Cancellation of the course by the University.
   3. Student is denied admission to an offered course by the University for whatever reason.

B. Partial refund due to complete withdrawal from the University:
   For the Fall and Spring semesters, a twenty-five (25%) percent refund of tuition is available for students who completely withdraw from the University by the end of the fourth week of classes. For the Summer semester, complete withdrawal from an individual session must occur before the first quarter of classes has elapsed for that session. Each session in the Summer semester is considered individually for partial refund purposes. No refund will be made unless requested by the student from the Student Accounts Office, Room 112, Administration Building. The exact withdrawal deadline dates for each semester may be obtained from the Student Accounts Office.

C. Refunds for exceptional circumstances at any time upon withdrawal for one or more courses. Up to 100% of tuition and registration fees due to circumstances determined by the University to be exceptional, including but not limited to sickness, death, involuntary call to military service or administrative errors created by the University.

D. Pro rata refunds for first term at UCF students: Between 60% and 90% of tuition and dorm charges for students who fully withdraw before 40% of the term has elapsed. Applies only to first term at UCF students. An administrative fee defined as the lesser of 5% of all charges or $100 will be deducted from the refund.

Tuition Fee Waivers For State Of Florida Employees

State employees, faculty, and staff who utilize a tuition fee waiver for coursework (up to 6 credit hours) without payment of the registration fees must register on the day and time provided by the Registrar. Employees who register prior to the prescribed time and date will have an invalid fee waiver, and will be liable for all applicable fees on courses enrolled. It is the responsibility of the employee to register only on a space-available basis; during the prescribed time as indicated by the Registrar, which is normally the last hour of Regular Registration. In addition, the tuition fee waiver cannot be used for courses which require increased costs. These courses include, but are not limited to: courses offered through the Center for Continuing Education, independent study, supervised research, supervised teaching lab, thesis hours, dissertation, internships, co-ops, practicums, or applied, individualized instruction in music, art, or dance, etc.

Tuition Fee Waivers For Senior Citizens

Persons 60 years of age or older who meet Florida residency requirements may register to audit classes on a space-available basis without payment of tuition and application fees. Registration is on a space-available basis; see the current schedule of classes for
dates and times. The tuition fee waiver cannot be used for courses which require increased costs (such as Thesis, Dissertation, Directed Individual Study).
A Florida Residency Affidavit is required in order to establish Florida residency. A completed Student Health History must be filed prior to registration. Inquiries should be directed to the Registrar's Office, Administration Building 161.

State Tuition Exempt Program (STEP)
Eligible members of the active Florida National Guard may receive a waiver of 50% of tuition and lab fees. Registration is on a space - available basis only during the time designated by the Registrar, which is normally the last hour of Regular Registration.

Florida Prepaid College Plan
For any student enrolled who has a Florida Prepaid College Plan, the University will automatically defer the portion of the tuition covered under the plan. The plan does not cover the Local UCF Fees. The student is responsible for paying local remaining material and supply fees by the fee payment deadline. IF YOU DO NOT WISH TO UTILIZE THE FLORIDA PREPAID COLLEGE PLAN, PLEASE NOTIFY THE STUDENT ACCOUNTS OFFICE, AD 112, BY THE FEE PAYMENT DEADLINE. NOTE: THESE FEES MAY CHANGE FOR THE 1996-1997 ACADEMIC YEAR.

Florida Residency For Tuition Purposes
To qualify as a Florida Resident for tuition purposes, students must:
Be a U.S. Citizen, Resident Alien, Parolee, Cuban National, Vietnamese Refugee, or other refugee or asylee so designated by the U.S. Immigration and Naturalization Service,
AND
Have established a legal residence in this state and maintained that legal residence for 12 months immediately prior to the term in which they are seeking Florida resident classification. The student residence in Florida must be as a bona fide domiciliary rather than for the purpose of maintaining a mere temporary residence or abode incidental to enrollment in an institution of higher education, and should be demonstrated as indicated below (for dependent students, as defined by IRS regulations, a parent or guardian must qualify),
AND
Submit the following documentation (or in the case of a dependent student, the parent must submit documentation) prior to the last day of registration for the term for which resident status is sought:
• Documentation establishing legal residence in Florida (this document must be dated at least one year prior to the first day of classes of the term for which resident status is sought). The following documents will be considered in determining legal residence:
  A. Declaration of Domicile.
  B. Proof of purchase of a home in Florida in which the student resides.
  C. Proof that the student has maintained residence in the state for the preceding year (e.g., rent receipts, employment records).
• Documentation establishing bona fide domicile in Florida which is not temporary or merely incidental to enrollment in a Florida institution of higher education. The following documents will be considered evidence of domicile even though no one of these criteria, if taken alone, will be considered as conclusive evidence of domicile:
  A. Declaration of Domicile.
  B. Florida voter registration.
  C. Florida vehicle registration.
  D. Florida driver license.
  E. Proof of real property ownership in Florida (e.g., deed, tax receipts).
  F. A letter on company letterhead from an employer verifying permanent employment in Florida for the 12 consecutive months before classes begin.
  G. Proof of membership in or affiliation with community or state organizations or significant connections to the State.
  H. Proof of former domicile in Florida and maintenance of significant connections while absent.
  I. Proof of reliance upon Florida sources of support.
  J. Proof of admission to a licensed practicing profession in Florida.
K. Any other factors peculiar to the individual which tend to establish the necessary intent to make Florida a permanent home and that the individual is a bonafide Florida resident, including the age and general circumstances of the individual.

- No contrary evidence establishing residence elsewhere.
- Documentation of dependent/independent status (notarized copy of most recent IRS tax return).

OR

Become a legal resident and be married to a person who has been a legal resident for the required 12-month period,

OR

Be a member of the Armed Forces on active duty stationed in Florida, or a spouse or dependent,

OR

Be a member of the full-time instructional or administrative staff of a state public school, community college or university in Florida, a spouse or dependent,

OR

Be a dependent and have lived five years with an adult relative who has established legal residence in Florida,

AND

File a notarized residence affidavit with the Admissions Office.

The Admissions Office may require additional documentation as seen necessary to accurately determine the resident status of any student.
STUDENT FINANCIAL ASSISTANCE OFFICE

The primary role of this office at the University of Central Florida is to provide financial assistance to students and families, allowing them to participate fully in the total educational experience. We encourage all students to apply for financial assistance by completing the Free Application for Federal Student Aid (FAFSA).

The following Financial Assistance policies and procedures are based upon federal, state and University regulations current for the 1996-97 academic year. Regulations are subject to change at any time.

DETERMINING ELIGIBILITY

In order to qualify for federal and state financial aid programs, a student must be a citizen or permanent resident of the United States, the Mariana Islands, or the Pacific Trust Territories. Some financial aid programs are available to part-time students; generally at least 6 credit hours enrollment per term is required. Pell Grants are available to some students attending for less than 6 hours.

The Student Financial Assistance Office encourages all students to apply for financial aid and to begin the process early. There are many grant, loan, and employment programs available. Most programs require the determination of financial need. Financial need is calculated by a Federal processor who uses a standardized formula: financial need equals the cost of education (specific to the school to be attended) minus the expected family contribution (specific to each applicant) and minus any Veteran’s Educational Benefits or other expected resources available. Students and/or parents provide detailed financial information on a Free Application For Student Aid (FAFSA) which generates a need analysis form. The results are forwarded to the UCF Student Financial Assistance office by the federal processor.

MORE SPECIFIC ELIGIBILITY REQUIREMENTS ARE LISTED BELOW:

The applicant must have a high school degree and must not be enrolled in an elementary or secondary school.

The applicant must be admitted as a degree-seeking student at UCF in an eligible program.

The applicant must be a U.S. citizen or an eligible non-citizen (e.g. resident alien). Eligible non-citizens include I-151, I-551 and I-688 cardholders as well as some I-94 classifications.

The applicant must be maintaining Satisfactory Academic Progress toward his/her degree. See the Satisfactory Academic Progress Requirements.

The applicant must not be in default on any Federal Student Loan and must not owe a repayment on any grant program.

The applicant must be registered with Selective Service (if applicable). Students may not receive aid in excess of the published "cost of attendance" (School Costs).

The applicant must not have received Federal loans in excess of the established annual or aggregate limits.

The applicant must show a financial need as computed on the FAFSA (for need based programs).

The applicant must meet minimum hours of enrollment and other program-specific criteria.

Receipt of State aid requires completion of CLAST requirements. The student who fails to pass CLAST must enroll in at least one course for credit each term which is related to the acquisition of skills to meet the minimum State Board of Education standards regardless of the number of subtests failed. In addition, the student must register to retake the CLAST. This requirement begins after the student has completed 60 semester hours of academic credit.
UCF APPLICATION DEADLINES

OFFICE HOURS:
Tue/Wed: 1:00 PM to 7:00 PM,
Mon/Thur/Fri: 9:00 AM to 5:00 PM

- To be considered for the full range of aid available for the academic year (beginning with the Fall Term), the need analysis report must be received from the federal processor by March 1 of the preceding Spring.
- Incoming students should not wait to be admitted to UCF before applying for financial aid.
- All students must reapply yearly for financial aid.
- Federal Pell Grants and Federal Stafford Loans are available on a year-round basis. Students may apply for financial aid in advance of any term and receive aid from these programs if eligible.
- Students who apply for aid after July 15, should not expect their aid to be paid until well after the beginning of the Fall semester.

APPLICATION PROCEDURES

The following steps can take 4 to 6 weeks to complete. Students should apply well in advance of the March 1 deadline of the year for which aid is being requested. Students who wish to enter UCF in Spring or Summer Term must also apply by the March 1 deadline of the preceding Spring in order to be considered for the maximum aid available.

1. **File a Free Application for Federal Student Aid**

UCF requires that you complete the Free Application for Federal Student Aid (FAFSA) or Renewal FAFSA.

*IMPORTANT:* The results of your FAFSA must be in our office by March 1 for the next Fall and Spring semesters, to meet our priority deadline, so that you may be considered for all aid available.

Read the instruction booklet carefully as you fill out the form. Errors and omissions can prevent you from receiving aid for which you could be eligible. Keep copies of all documents filed.

Follow-up promptly on all corrections to your FAFSA. If your record is "rejected in analysis" by the federal processor, be sure to provide them with the information they request as soon as possible. Processing of your file will be held up until corrections are made.

2. **Request Financial Aid Transcripts** (in addition to academic transcripts) from every post-secondary institution you have ever attended, whether or not you received any financial aid.

To request financial aid transcripts, provide the school with your SSN and the name under which you attended that school. Ask them to make sure your SSN is on the transcript they send to UCF. Allow 2 to 4 weeks for processing. If you are enrolled at another institution at the time you are involved in the UCF application process, wait until you have completed that term of enrollment before requesting the financial aid transcript.

3. **Follow-Through**

Your application will not be complete until all documents requested have been filed and reviewed in our office.

Whenever you receive financial aid correspondence, review it thoroughly and follow directions promptly. Delays can be frustrating, as well as costly.

4. **Verification**

Federal regulations require that some students verify the information submitted on their applications. If selected for verification, you will be asked to provide additional information (such as copies of tax return forms, documentation of household size, untaxed income, etc.). It is not unusual for additional documents to be requested after the initial review of the file. Prompt response to requests for additional documentation will expedite completion of this process. Financial aid cannot be processed or received until verification is complete and all necessary corrections have been made.

5. **Professional Judgment**

Contact the Student Financial Assistance Office if you experience a circumstance that you were not able to state on your original FAFSA and might affect your financial situation.
6. Award Notification
Award and important additional information will be sent to you after we process your data. You may provide loan processing information at that time (AFTER APRIL 1996).

HELPFUL TIPS:
- Make a copy of tax return forms before submission to IRS.
- Start a folder NOW to save financial aid information and photocopies of all documents filed and received.
- Include student's name and SSN on all documents submitted to Student Financial Assistance.
- Maintain a current address in the REGISTRAR'S OFFICE; all financial aid correspondence is mailed to that address.
- Complete all items necessary to apply for both a Federal Pell Grant and a Federal Stafford Loan; even if it doesn't seem advantageous at the time. The law requires that students be considered for a grant before a loan is offered; choosing a lender now does not obligate the student to process a loan, but will make it easier if additional funds are needed.
- If you have extenuating circumstances or run into major problems at anytime, call our appointment line, (407-823-5285), to meet with a counselor.

Office Hours: Monday, Thursday, and Friday - 9:00 am - 5:00 pm Tuesday and Wednesday - 1:00 pm - 7:00 pm Call (407)823-2827 for other information or to speak to someone in the office.

TRANSFER STUDENTS
The UCF Student Financial Assistance office must have on file a Financial Aid Transcript from every post-secondary school ever attended, whether or not financial aid was received. If you are eligible to receive aid at another institution for the academic year in question, please be aware that the only transferable programs are the Federal Pell Grant and the Florida Student Assistance Grant (FSAG). You must apply for a Federal Stafford Loan at UCF.

To apply for financial aid at UCF, complete all the application procedures listed with one exception. If a need analysis for the year in question has already been filed, the student need only request that the processor forward the information to UCF. (CODE 003954)

To transfer the remainder of a Federal Pell Grant, students must contact the Federal Processor to request financial aid data be sent to UCF, Code 003954.

To transfer the remainder of an FSAG, send a copy of the state award letter and UCF's name and address to: State of Florida, Office of Student Financial Assistance, Department of Education Center, Tallahassee, FL 32399. Please do this before their stated deadline.

DUAL ENROLLMENT
Students who have been approved to take classes at another institution may have those hours counted toward meeting financial aid requirements at UCF by:
- Submitting to the Student Financial Assistance Office a legible copy of a completed UCF Transient Student form with all required signatures. The form is available from the department of your major. This will confirm that the hours will be accepted by UCF toward your degree.
- Submitting a copy of your registration form and/or invoice confirming that you actually enrolled for the hours appearing on your Transient Student form.
- Dual enrolled students must make arrangements for paying tuition and fees at the visited school, since there is no deferral mechanism. In addition, it is the student's responsibility to assure that the visited school promptly furnishes UCF with academic transcripts, confirming that the attempted hours are completed. Transcripts or grades should also be submitted to the Student Financial Assistance office. This will help avoid academic progress problems. Keep in mind, if you expect to receive funds under any of the Federal Loan Programs, you must enroll for a minimum of six hours at UCF in UCF classes to meet eligibility requirements.
- Also, please keep in mind that you may not receive financial aid from two institutions at the same time. You must decide which of the two institutions is your primary school at which
you are degree-seeking and apply for aid there. Students will sometimes be paid aid at both schools if the schools are not aware of the dual application; however, a monitoring system has been put into place at the federal level to identify these students. This will result in a mandatory repayment back to one of the two schools for the overpayment.

**INDEPENDENT STUDENT STATUS**

The financial resources of parents/guardians do not have to be included in the determination of student's financial need if the student is:

- 24 years of age or older as of the award year
- an orphan or ward of the court
- a veteran
- legally responsible for dependents other than a spouse
- married
- accepted into a Graduate/Professional Program

**UCF FINANCIAL ASSISTANCE PROGRAMS**

If determined eligible, you will receive an award letter offering you a financial aid package composed of one or more of the following programs. Your admission to UCF must be finalized, you must be classified as Degree-Seeking, the verification process must be completed before a financial aid award will be disbursed and you must be meeting the standards for Satisfactory Academic Progress. Other loan and employment programs not based on need are provided below.

Your awards will be based upon: your financial need (as determined by a standardized formula applied to data provided on your applications), the amount of funds available to UCF, the number of UCF students who qualify for aid, as well as the date you complete the application process. The amounts listed on your award letter will be estimates based on full-time registration. Awards will be subject to change. Check the chart below to see in how many hours you must enroll for each semester in order to receive an award from each program. The results of the FAFSA will determine eligibility for these programs.

<table>
<thead>
<tr>
<th>Minimum Available Credit Hrs. to Graduate</th>
<th>Second Priority Credit Hrs. to Graduate</th>
<th>Degree Seeking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal Pell Grant</td>
<td>Before Prorated Credit Hrs. to Graduate</td>
<td>Degree Seeking</td>
</tr>
<tr>
<td>You must be considered for a Federal Pell Grant before other forms of aid will be offered; covers a maximum of two full-time semesters a year.</td>
<td>Before Jun 30 Prorated based on hours</td>
<td>No</td>
</tr>
<tr>
<td>Federal SEOG (Supplemental Educational Opportunity Grant)</td>
<td>Mar 1 12</td>
<td>No</td>
</tr>
<tr>
<td>FSAG (Florida Student Assistance Grants)</td>
<td>May 15 12</td>
<td>No</td>
</tr>
<tr>
<td>Read State information sheet, available from Student Financial Assistance, for residency requirements and application procedures; must maintain 2.0 GPA.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Federal College Work Study</td>
<td>Mar 1 12</td>
<td>Yes</td>
</tr>
<tr>
<td>On campus jobs; award earned as hourly wage. Not available to post-baccalaureate students.</td>
<td></td>
<td>Yes</td>
</tr>
</tbody>
</table>
**FWEP (Florida Work Experience Program)**

<table>
<thead>
<tr>
<th>Minimum</th>
<th>Available</th>
<th>Second</th>
</tr>
</thead>
<tbody>
<tr>
<td>Priority</td>
<td>Credit Hrs.</td>
<td>to Graduate</td>
</tr>
<tr>
<td>Deadline</td>
<td>Required</td>
<td>Students</td>
</tr>
</tbody>
</table>

Off campus jobs; students paid an hourly wage.

**Federal Stafford Loan Program,**

repayment may be deferred. Loan amounts vary as well as interest rates and repayment options.

**Federal Perkins Loans**

are currently made at 5% interest rate; loans deferred until 6 or 9 months after you graduate or drop below 6 hours. Not available to post-baccalaureate students.

**Scholarships**

There is a broad range of scholarships available through federal, state, institutional, and private sources. Each has different eligibility criteria. Check with the Scholarship Office Handbook for more information. Inquire about ROTC scholarships at their office.

**Federal Unsubsidized Stafford Loans**

These loans operate under the same terms as regular Federal Stafford Loans except that financial need is not necessary. In addition, the student is responsible for the payment of interest as it accrues (alternatively the interest can be capitalized into the loan balance). This loan now replaces the Supplemental Loan for Students (SLS) previously available to independent students.

**Federal Parent Loans to Undergraduate Students (PLUS)**

These are loans which parents take out on behalf of their children (student must be dependent for financial aid purposes).

**LOANS**

Federal Family Educational Loans are made through private lenders. Undergraduate and degree seeking PostBac students must be enrolled for a minimum of 6 credit hours at UCF in UCF classes at the time of disbursement to receive a loan check. Graduate students must take 3 credits. First-time borrowers at UCF must attend an Entrance Interview before a loan check will be released to them. The times and location of Entrance Interviews will be posted. Exit interviews are required upon graduation, or when enrollment becomes less than one-half time (6 credit hours) at UCF. Half-time for Undergraduate and PostBac degree seeking student is 6 credits in UCF classes. Graduate students require 3 credits to maintain loan eligibility.
Payment is deferred until students graduate or drop below 6 hours enrollment at UCF. Once eligibility has been determined by a need analysis, students must request a Loan by the dates printed below so that processing can be completed in time to receive funds during the term indicated.

- October 15 - Fall Term Loan
- February 15 - Spring Term Loan
- June 15 - Summer Term Loan

**EMPLOYMENT**

Federal College Work Study jobs are awarded as part of a student's financial aid package if need so indicates: a minimum of 12 hours enrollment is required for Undergraduate and 9 hours for Graduate students. Jobs are on-campus and efforts are made to match job assignments with the student's academic program. Awards are paid as an hourly wage.

The Florida Work Experience Program (FWEP) provides off-campus jobs related to the student's major to help fill unmet financial need established by a current need analysis. Six hours enrollment is necessary. This program is administered by the Office of Cooperative Education, (407) 823-2667.

Cooperative Education (Co-op) jobs related to students' educational goals are available off-campus and are not based on need. Contact the Office of Cooperative Education, (407) 823-2667.

OPS (Other Personnel Services) jobs are available on-campus and are not related to financial need. Application is made directly to the Department advertising the position.

**OTHER SERVICES**

UCF Emergency Short Term Loans are available to currently enrolled students. Loans are granted at the beginning of the semester for books and emergencies. This is not for the payment of tuition and fees nor is it for payment of foreseeable expenses such as rent or food. A $5.00 non-refundable service charge will be assessed for processing the loan. This service charge, like other debts owed the University, will be deducted at the time of check disbursement. If the loan is canceled, or not picked up, the $5.00 service charge still must be paid. The specific repayment date of the loan is noted on the loan contract.

Food Service Loans are available to students who have already been awarded sufficient financial assistance to cover all debts owed the University and who live on campus. Food Service Loans are processed by Student Financial Assistance. A $5.00 non-refundable service charge will be assessed at the time of processing.

**SCHOOL COSTS**

Cost of Attendance 1996-97 (Full Time)

<table>
<thead>
<tr>
<th></th>
<th>OFF-CAMPUS</th>
<th>ON-CAMPUS</th>
<th>WITH-PARENTS/RELATIVES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuition/Fees</td>
<td>$1,912</td>
<td>$1,912</td>
<td>$1,912</td>
</tr>
<tr>
<td>Books/Supplies</td>
<td>700</td>
<td>700</td>
<td>700</td>
</tr>
<tr>
<td>Room/Board</td>
<td>5,240</td>
<td>4,220</td>
<td>1,660</td>
</tr>
<tr>
<td>Personal Exp.</td>
<td>1,710</td>
<td>1,710</td>
<td>1,710</td>
</tr>
<tr>
<td>Transportation</td>
<td>1,720</td>
<td>400</td>
<td>1,720</td>
</tr>
<tr>
<td>Total (In State)</td>
<td>$11,282</td>
<td>$8,942</td>
<td>$7,702</td>
</tr>
<tr>
<td>Out-Of-State Fee</td>
<td>5,040</td>
<td>5,040</td>
<td>5,040</td>
</tr>
<tr>
<td>Total (O/S)</td>
<td>$16,322</td>
<td>$13,982</td>
<td>$12,742</td>
</tr>
</tbody>
</table>

**DEFERRALS OF TUITION AND FEES**

Financial assistance awards will normally result in the student being granted a deferment of tuition and fee payments. This process occurs automatically if the student has enrolled for sufficient hours, is meeting all general eligibility requirements, and is making Satisfactory Academic Progress. This program makes up for the time lag that normally occurs between the date that tuition and fees are due and the date on which financial aid disbursements are made, which is normally three (3) to four (4) weeks after the semester begins. Students registering
for classes during Early Registration must pay or be deferred for tuition and fees EARLY, prior to the beginning of classes. Students who do not pay their fees or have a valid Financial Aid deferment before the early due date will be dropped from their classes.

- **Your fee invoice** (class schedule) reflects the dollar amount of your deferment at the time of printing. You should use the Direct Access Phone System to obtain up-to-date information. If the total amount of your tuition and fees exceeds the amount of your deferment, the difference must be paid by the due date on your fee invoice (class schedule). Different financial assistance programs require different hours of enrollment for eligibility. Make sure you are registered for the required number of hours. Students must register for at least 12 hours to receive a FSAG, FSEOG, and UCF Grant; 6 hours to receive a Federal Pell, Federal Stafford, and Federal Perkins award. (Note: Undergraduate and Degree-Seeking PostBac students must have 6 hours at UCF in UCF classes for the Federal Stafford loans. Graduate students need 3 credits.)

- The following programs are not included in the Automatic Deferral Program: work study programs, third party deferrals, other waivers, and direct-pay scholarships.

- Since awards are subject to change, deferments are also subject to change.

- **Deferments based on estimated Stafford loans will be canceled if the student does not complete the loan process.**

- Financial aid deferments based on Federal or State Programs will not be available to students who do not complete a FAFSA in time for the results to be in UCF's computer system by fee deadline dates. Federal loans cannot be processed without FAFSA data on line to support the award.

**NOTE:** Both Subsidized and Unsubsidized Federal Stafford Loans will result in a deferral in the amount of 96% of the award, since origination fees are taken out by the lender and the guarantee agent in the amount of 4%. It is the responsibility of the student to properly drop classes prior to the end of the add/drop period. Additionally, under any circumstance where previously estimated financial aid cannot be paid and a deferment must be canceled, the student is liable for the cost of tuition, whether or not he/she attended classes.

**FUND DISBURSEMENTS**

Financial assistance disbursements are not available at the time of registration. Checks, including Federal Stafford and Short Term Loan checks, will be disbursed after the first day of classes. Therefore, students should make themselves aware of the Automatic Deferrment policies and procedures and be prepared to use personal savings or a UCF Short Term Loan for books and other expenses anticipated. Late applicants will likely find themselves caught up in a processing backlog that could dramatically delay the disbursement of their aid. These individuals should be prepared to cover their own living expenses out-of-pocket well into the semester.

Financial assistance funds for most programs are mailed directly to the student by the UCF Office of Student Accounts. Initial disbursements should take place after the third week of each semester. Most grant and scholarship checks go through a "net checking" process in which debts owed to the University are deducted from the available assistance. Federal Perkins Loan checks must be picked up at the Cashier's Office upon notification by Student Accounts.

Federal Stafford checks are mailed to the student without any deduction for debts owed to the University. It is the student's responsibility to pay outstanding debts to the school within 21 days of the date of the transmittal letter to avoid a late charge. Undergraduate and Degree-Seeking PostBac students must be enrolled in at least 6 credit hours at UCF in UCF classes at the time of disbursement of each Federal Stafford Loan check. Graduate students need 3 credits. Borrowers under the Federal Stafford program who have not yet successfully completed their first year of undergraduate study cannot receive their initial checks until 30 days into the semester.

**NOTE:** The verification process must be complete before financial assistance funds will be released. Students on Financial Assistance Cancellation will not receive funds.
Federal Stafford Loans

Your student loan check(s) will be mailed to the University of Central Florida after your lender has received a completed application/promissory note approved by UCF. We strongly suggest that you follow-up with your lender if you have not received your loan check within 20 days of mailing your promissory note. Please note to estimate when your Federal Student Loan check will be mailed, refer to the Disclosure Statement from your lender, it indicates a date the lender intends to send the check to UCF. If that date is before the semester starts, please allow 10 working days from the first day of classes before inquiring about your check. If the date is after the semester begins, please allow 10 working days from the disbursement date for UCF processing. LOAN CHECKS WILL BE DISBURSED AFTER THE BEGINNING OF CLASSES.

- First - time borrowers at UCF: Must attend an Entrance Interview at UCF before a check can be disbursed. The times and location of Entrance Interviews will be posted.
- Two - term loans: To receive the second half of a two - term loan, you must have received the first disbursement, and be enrolled for at least 6 hours at UCF (Graduates - 3 hours) for the second semester to receive the second check. If you did not accept your first term loan disbursement, you cannot receive the second term disbursement. You must cancel the original loan request and reapply for a new loan through Student Financial Assistance.
- One - term loans: Disbursement of a one - term loan will be divided into two payments. You must maintain eligibility throughout the term to be eligible for each disbursement. The second disbursement cannot be made until at least 1/2 of the term is over.
- Students who have not successfully completed their first year of undergraduate study (i.e., First Year Freshman=1 F) will not receive their checks until 30 days after classes have begun.
- Summer Term: Undergraduate and Degree-Seeking PostBac students must have a minimum of 6 hours at UCF in UCF classes to receive assistance. If your hours include Summer B hours which are needed to meet the minimum requirements, funds will not be disbursed until Summer B term. Graduates require 3 credits.

EXIT INTERVIEWS ARE REQUIRED UPON GRADUATION OR DEPARTURE FROM UCF.

REMEMBER: You must maintain your proper address with the Registrar's Office.

AWARD LETTERS

In the Spring of each year, most students will be notified of the estimated awards they should receive in the coming school year. Award notices may not go out to students who were selected for verification, and have not completed that process, since verification corrections often alter award eligibility. Notification will also not go out to students who have been canceled from financial assistance due to a problem with academic progress. Award letters which are sent out anytime prior to the beginning of the semester will disclose estimated awards based on the enrollment information provided by the student on the FAFSA. If the student enrolls for less than 12 hours, some estimated awards may change. In addition, new information brought to the attention of our office (such as third party benefits, waivers or deferrals, prepaid tuition plans, or newly awarded scholarships) can cause a reduction in the amount of previously estimated need-based assistance.

Award letters are eventually sent out to students who miss the application priority deadline once there is enough information on file to make an awarding decision. Verification students will receive their award notifications once that process is complete. Regardless of when the notification is sent out, it will be accompanied by a comprehensive information insert. Students should read this insert carefully and follow the instructions.

Only students receiving Perkins Loans are required to return signed appropriate documents of receipt to acknowledge acceptance of the award. Please note that although an estimated Federal Stafford loan may appear on the award letter to notify students that they are eligible for that form of assistance, a student must still apply for the loan by completing the requested information on the Financial Aid Information and Response Form (FAIR).
OVERAWARDS/OVERPAYMENTS

Awarding of a financial aid package involves matching your student budget with the Estimated Family Contribution (EFC) which is calculated from your FAFSA information. We attempt to award you as much of the difference (your unmet need) as possible. From time to time, we will establish an aid package for a student and later the budget or EFC changes or aid will come in from some unexpected source (such as a scholarship). This may result in what is called an Overaward. If no adjustment to the aid package occurs and the financial aid is actually paid, this is called an Overpayment. State and Federal regulation require adjustment or repayment of overawards and overpayments for many programs. If you receive notification of scholarship or other third-party payment after receipt of your award notice, please notify us. We may be able to correct an overpayment before it becomes an overaward. If an overpayment does occur, we will notify Student Accounts and you will be required to work with them on a repayment.

REFUND AND REPAYMENT POLICIES

Students should be aware that if they withdraw from the University after having received financial assistance, they may have to repay a portion of that assistance. Students who received Federal Stafford Loans should also know that the Student Financial Assistance Office is required to notify lenders of student withdrawals.

Refunds

Financial assistance recipients planning to withdraw from UCF should first consult the University's Withdrawal Policy published under Academic Policies and Procedures in the UCF Catalog. If the student is due a refund according to this policy, the financial assistance program(s) from which the student received assistance will first be reimbursed. Any remaining balance after refunding all appropriate assistance programs will be refunded to the student. In no case will the amount refunded to the assistance program exceed the amount disbursed.

Repayment

A portion of the financial assistance disbursed to the student for non-instructional costs may have to be repaid by the student to the University. The amount of repayment due from the student will be based upon the schedule printed below.

A student who owes a financial assistance repayment will not be allowed to receive further financial aid funds until the repayment is paid in full. In addition, academic and financial assistance transcripts will be withheld until repayment is complete.

Fall and Spring Terms

<table>
<thead>
<tr>
<th>Week of withdrawal</th>
<th>Amount of repayment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st week</td>
<td>100% of total aid* received</td>
</tr>
<tr>
<td>2nd or 3rd week</td>
<td>75% of total aid* - book allowance - tuition and fees</td>
</tr>
<tr>
<td>4th or 5th week</td>
<td>50% of total aid* - book allowance - tuition and fees</td>
</tr>
<tr>
<td>6th or 7th week</td>
<td>25% of total aid* - book allowance - tuition and fees</td>
</tr>
<tr>
<td>8th week or after</td>
<td>No repayment due</td>
</tr>
</tbody>
</table>

Summer A, B and C Terms

<table>
<thead>
<tr>
<th>Week of withdrawal</th>
<th>Amount of repayment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st week</td>
<td>100% of total aid* received</td>
</tr>
<tr>
<td>2nd week</td>
<td>75% of total aid* - book allowance - tuition and fees</td>
</tr>
<tr>
<td>3rd week</td>
<td>50% of total aid* - book allowance - tuition and fees</td>
</tr>
<tr>
<td>4th week or later</td>
<td>No repayment due</td>
</tr>
</tbody>
</table>

*Total aid excludes moneys received from the following programs: Federal College Work Study, Federal Stafford Loans, and Federal Parent Loans for Students.

Students should schedule an appointment with or come to the Student Financial Assistance Office prior to withdrawing from classes to confirm the consequences of that withdrawal. The appointment number is (407) 823-5285.
CONDITIONS AND REQUIREMENTS FOR RECEIVING ASSISTANCE

- You must enroll for a minimum of six semester hours. Three hours are required for Graduate students to receive Federal Stafford Loans. Twelve hours are required for some programs including FSAG and most Scholarships. However, Pell Grants may be paid on less than six hours of enrollment.
- Upper level students must pass the CLAST in order to receive State assistance.
- You must maintain UCF's standards for Satisfactory Academic Progress (printed on a following page).
- Your signed award letter is an agreement which requires you to inform us of any additional assistance you receive beyond that listed on your award letter. Any subsequent awards or income may necessitate a revision of your financial assistance award.
- You must not be in default on any educational loan or owe repayment on a grant at this or any other institution.
- You must provide all information requested for the completion of your file. If selected, verification must be completed prior to the receipt of any funds or certification of a Federal Stafford Loan.
- You must supply a financial aid transcript from all previously attended post-secondary institutions, whether or not you received any financial assistance.
- You must notify the Student Financial Assistance Office of any changes in your employment, housing, marital, or financial status from that listed on your assistance application.
- You must reapply yearly for financial assistance.
- Your Financial Aid Package may not exceed the cost of attendance as specified previously under "School Costs."

SATISFACTORY ACADEMIC PROGRESS POLICY

Federal regulations require the University to establish standards of Satisfactory Academic Progress as a general eligibility requirement for financial assistance. A student must maintain Satisfactory Academic Progress in a course of study regardless of whether the student was a previous recipient of financial aid. Students who are unclear about these policies should schedule an appointment. The factors required to measure satisfactory progress are as follows:

A. Maintain a minimum overall GPA of 2.0.
B. Complete the required hours by the end of the Spring term of each academic year.
C. Graduate within the time limit assigned by this policy.

1. Grade Point Average - GPA is monitored at the end of each term.

Undergraduate
A. Overall GPA
Freshman/Sophomore
No minimum Overall GPA is required as long as the student is not disqualified or excluded by the Registrar's Office. (See Academic Policies)
Junior/Senior/Post-Baccalaureate
A minimum Overall GPA of 2.0 is required and the student must not be disqualified or excluded by the Registrar's Office.
B. Disqualified/Excluded
When students are disqualified or excluded by the Registrar's Office, they will automatically be placed on Financial Aid Cancellation. Upon readmission to UCF, students MUST appeal separately to the Student Financial Assistance Office to be considered for Financial Aid reinstatement.
Graduate
A GPA of at least 3.0 is required for those courses specified in the graduate student's program. See Academic Standards in the Graduate Catalog.
2. Hours Completed - At the end of each academic year, hours completed are monitored for the previous three terms (Summer, Fall, and Spring). Students are required to complete a specified number of credits as determined by their enrollment status. (See chart below):

<table>
<thead>
<tr>
<th>Undergraduate</th>
<th>Attempted Hours</th>
<th>Required to Complete</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full time</td>
<td>12 or more</td>
<td>10</td>
</tr>
<tr>
<td>3/4 time</td>
<td>9, 10, 11</td>
<td>8</td>
</tr>
<tr>
<td>1/2 time</td>
<td>6, 7, 8</td>
<td>5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Graduate</th>
<th>Attempted Hours</th>
<th>Required to Complete</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full time</td>
<td>6 or more</td>
<td>5</td>
</tr>
<tr>
<td>1/2 time</td>
<td>3, 4, 5</td>
<td>3</td>
</tr>
</tbody>
</table>

Successful completion of a class is defined as earning a grade of A, B, C, D or S. Unsuccessful completion is defined as earning a grade of F, W, I, WP, WF, X, N, U, or NC.

3. Time Limit
When a student meets or exceeds the number of allowed Overall Attempted Hours, they will be placed on Financial Aid Cancellation at the end of the term. (Even if financial aid was not received during previous terms.)

<table>
<thead>
<tr>
<th>Classification</th>
<th>Time Frame Allowed for Completing Degree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undergraduate</td>
<td>180 Overall Attempted Hours (including transferred hours)</td>
</tr>
<tr>
<td>Second Degree</td>
<td>60 Overall Attempted Hours (including all Post-Bac hours)</td>
</tr>
<tr>
<td>Post-Baccalaureate</td>
<td>30 Overall Attempted Hours</td>
</tr>
<tr>
<td>Master's</td>
<td>70 Overall Attempted Hours (including all Post-Bac hours)</td>
</tr>
<tr>
<td>Specialist</td>
<td>100 Overall Attempted Hours (including all Graduate and Post-Bac hours)</td>
</tr>
<tr>
<td>Doctorate</td>
<td>120 Overall Attempted Hours (including all Graduate and Post-Bac hours)</td>
</tr>
</tbody>
</table>

Probation
If students are placed on Financial Aid Probation, they must complete the following requirements for the term in which they are on probation. Failure to do so will result in Financial Aid Cancellation at the end of the probationary term. Students on probation must complete the minimum required hours as defined above in "2. Hours Completed" for that term, with a minimum Term GPA of 2.0.

PROCEDURE FOR APPEALS
If students do not meet the above standards, they will be placed on Financial Aid Cancellation. When students are on Financial Aid Cancellation, they are not eligible for aid, nor a deferment, until reinstated through the appeal process. Any student with extenuating circumstances who is placed on Cancellation may appeal to the Financial Aid Review Committee. To appeal, the student must:
1) Complete the Satisfactory Academic Progress Appeal Form before the established deadline.
2) Submit acceptable documentation supporting the extenuating circumstances.

After a thorough evaluation of the written request and all documentation, the Financial Aid Review Committee will notify the student of its decision in writing. Aid remains canceled unless the student receives written notification of reinstatement.

Students who choose not to appeal and who were canceled for reasons other than time limit and desire to receive financial aid at UCF in the future, must either make up the deficit hours on their own or enroll and complete successfully at least 6 hours (on their own) to be considered for reinstatement through the appeal process. For details, contact the Student Financial Assistance Office.
FINANCIAL ASSISTANCE FOR GRADUATE STUDENTS

There are several sources of financial assistance available to UCF graduate students. Federal Perkins and Federal Stafford loans and the Federal College Work Study Program described previously, require that financial need be established by filing the FAFSA.

Out-of-State Tuition Waivers are offered by each college and the Office of Minority Student Services to non-Florida residents. Some colleges give priority to graduate students in making award selections.

Eligibility and application guidelines for Teaching or Research Assistantships and Graduate Assistant positions are established by the colleges or in some cases by departments, as are pay scales. To apply for an assistantship position, contact the Dean's Office in the College of Business Administration or Education or the department's graduate coordinator in the College of Arts and Sciences, Engineering, and Health and Professional Studies.

There are also scholarships available to graduate students. Please check the monthly scholarship listing posted on the bulletin board outside the Student Financial Assistance Office.

Federal Perkins and Federal College Work Study are available only to students who are admitted into a Graduate Program. Post-Baccalaureate students are not eligible for these assistance programs.

STUDENT RIGHTS AND RESPONSIBILITIES

• Students have the right to full information about the financial aid programs available at UCF, our application procedures and deadlines, and the criteria used to determine a financial package.

• Students have the right to appeal decisions made by The Student Financial Assistance Office.

• Students have the right to equitable treatment of their financial assistance applications. Although each student's case is analyzed individually, eligibility standards are applied uniformly without regard to race, gender, religion, creed, national origin, or physical handicap.

• All students' records are confidential.

• It is the student's responsibility to review and understand all information and instructions, meet all deadlines, and provide all information and documentation accurately. Errors and omissions can cause delays and prevent students from receiving assistance. Misrepresentation is a violation of the law.
ACADEMIC POLICIES
AND PROCEDURES

ACADEMIC BEHAVIOR STANDARDS
The University of Central Florida is committed to a policy of honesty in academic affairs. Examples of conduct for which students may be subject to academic and/or disciplinary penalties including expulsion are:

Cheating whereby non-permissible written, visual or oral assistance including that obtained from another student is utilized on examinations, course assignments or projects. The unauthorized possession or use of examination or course related material may also constitute cheating.

Plagiarism whereby another's work is deliberately used or appropriated without any indication of the source, thereby attempting to convey the impression that such work is the student's own. Any student failing to properly credit ideas or materials taken from another has plagiarized.

NOTE: A student who has assisted another in any of the aforementioned breach of standards shall be considered equally culpable. In cases of cheating or plagiarism, the instructor may take appropriate academic action ranging from loss of credit for a specific assignment, examination or project to removal from the course with a grade of "F". Additionally, the instructor may request disciplinary action through the Dean of Students Office as outlined in The Golden Rule.

UNIVERSITY OMBUDS OFFICE
The Office of the Ombuds Officer provides members of the University community assistance and advice regarding concerns related to the University. These services are available to every member of the University community--students, staff, faculty, and others. Any type of concern may be brought to the attention of this office: academic, financial, housing, consumer, work-related, or personal. The University Ombuds Officer is a neutral facilitator, and will listen to your concern, help you explore options, offer suggestion and advice, and assist in the resolution of your concern. Referral and direction to appropriate individuals and offices, and clarification of university policies and procedures are services of the office. All proceedings in individual cases will be held confidential by the Ombuds Officer unless otherwise authorized by the complainant, or otherwise required by applicable law, including without limitation, Chapter 119, Florida Statutes. The University Ombuds Office is located in the Administration Building, Room 338F. Appointments may be made by calling (407)-823-6440.

STUDENT CLASSIFICATIONS
Students will be classified by level, on the basis of semester hours satisfactorily earned:

Freshman: Through 29 semester hours.
Sophomore: 30-59 semester hours.
Junior: 60-89 semester hours and have fulfilled CLAST and Golden Rule requirements.
Senior: 90 or more semester hours, prior to completion of baccalaureate requirements.
Post-Baccalaureate: Any student enrolled in courses, regardless of course level (except one working toward another baccalaureate degree), who has a baccalaureate degree but has not been admitted to a graduate program.
Graduate: Any student enrolled in graduate courses who has been admitted to a graduate program.
Other student classifications:
Auditor: A student registered for any credit course who is not seeking credit.
Co-op Student: A student enrolled in the Cooperative Education Program remains
a registered student during all off-campus assignment semesters. Furthermore, there is no lapse in continuity in the co-op school calendar: a co-op student is either on assignment or attending class during each school semester. (See Veterans' Benefits for co-ops.)

**Special Student:** A student of demonstrated academic ability who does not meet the regular requirements for admission (Early Admission, non degree-seeking, transient, and auditor).

**Temporary:** A student who applied before the deadline and is permitted to register and attend class pending completion of the admission file.

**Transient:** Students temporarily registered (for one semester) at the University of Central Florida with the approval of some other university or college where they are regularly enrolled, or a UCF student temporarily in attendance at another university or college, with the approval of UCF. A UCF student may not be enrolled as a transient student in another institution during the term in which the baccalaureate degree or the Associate of Arts degree is to be awarded.

**Non-Degree-Seeking:** A student earning credit, but not working on a degree program.

**Provisional:** A student entering from a regionally unaccredited high school, college, or university may be admitted on provisional status where appropriate. By obtaining a 2.0 GPA ("C" average) or better at the end of the first semester of attendance, the provisional status will be removed. Earning less than a "C" average the first term would result in disqualification.

**SEMESTER HOURS DEFINED**
The graduation credit value of each course of instruction is stated in terms of semester hours. A semester hour of credit represents one class hour of work (or two or more laboratory hours of work) per week for a semester.

Classes may be offered for a six-week period during the summer semester. During this shortened semester, two and a half class hours of work (or four or more laboratory hours of work) per week are required to represent a semester hour of credit.

**MAXIMUM COURSE LOAD**
The University reserves the right to establish maximum course loads for students at any level. Course load limitations will be published in the term Class Schedule and made available prior to the beginning of the term.

**GRADE SYSTEM**
The University uses an alphabetic system to identify student grades and other actions regarding student progress or class attendance. This system, with a grade point equivalent per semester hour, is as follows:

<table>
<thead>
<tr>
<th>Grades</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Excellent</td>
<td>4 grade points</td>
</tr>
<tr>
<td>B</td>
<td>Good</td>
<td>3 grade points</td>
</tr>
<tr>
<td>C</td>
<td>Average</td>
<td>2 grade points</td>
</tr>
<tr>
<td>D</td>
<td>Passing</td>
<td>1 grade point</td>
</tr>
<tr>
<td>F</td>
<td>Failure</td>
<td>0 grade point</td>
</tr>
<tr>
<td>NC</td>
<td>No Credit</td>
<td>0 grade point*</td>
</tr>
</tbody>
</table>

* Available only in ENC 1101, ENC 1102 and STA 2014.
### Other Actions

<table>
<thead>
<tr>
<th>Action</th>
<th>Description</th>
<th>Grade Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>W</td>
<td>Withdrawn</td>
<td>0</td>
</tr>
<tr>
<td>WP</td>
<td>Withdrawn Passing</td>
<td>0</td>
</tr>
<tr>
<td>WF</td>
<td>Withdrawn Failing</td>
<td>0</td>
</tr>
<tr>
<td>WM</td>
<td>Medical Withdrawal</td>
<td>0</td>
</tr>
<tr>
<td>I</td>
<td>Incomplete</td>
<td>0</td>
</tr>
<tr>
<td>X</td>
<td>Audit (no credit)</td>
<td>0</td>
</tr>
<tr>
<td>S</td>
<td>Satisfactory (with credit)/Satisfactory Progress</td>
<td>0</td>
</tr>
<tr>
<td>U</td>
<td>Unsatisfactory (no credit)</td>
<td>0</td>
</tr>
<tr>
<td>T</td>
<td>Subsequently repeated (no credit)</td>
<td>0</td>
</tr>
<tr>
<td>R</td>
<td>Repeated course (grade forgiveness)</td>
<td>0</td>
</tr>
<tr>
<td>N</td>
<td>No grade reported by professor</td>
<td>0</td>
</tr>
</tbody>
</table>

The grade point average (GPA) is the average number of grade points per semester hour attempted and is computed by dividing the total number of grade points assigned by the total number of semester hours attempted, less hours resulting from NC, W, WP, and I grades. The grade point average for graduation requirement is 2.0 ("C") and will be computed on both the student's total academic program and the UCF program.

The designation of "N" will be temporarily assigned by the Records Office only in the case when a grade has not been submitted by the faculty by the "grades due" deadline. The designator will be replaced by the earned letter grade at the earliest opportunity in the semester which immediately follows. The "N" designator may not be assigned by faculty.

A request for grade change will be considered only during the term immediately following the one in which the grade was assigned, except that grades assigned during the spring semester may be changed during either the following summer or fall terms. Academic Actions do not change when an incomplete grade is completed nor when a course is repeated. A change in a grade must be approved by the Dean of the college. A grade will not be changed after a degree has been conferred.

### ACADEMIC STANDING

All Academic Actions are shown on grade reports and transcripts. The action is generated due to course completion. Changing a course grade does not necessarily change academic action. An exception can be made when an error is committed and is so stated on the Change of Grade request form by the professor.

- **Semester Average:** Grade Point Average on work attempted during any given semester.
- **UCF Average:** Grade Point Average on all work attempted while in attendance at the University of Central Florida.
- **Overall Average:** Grade Point Average on all work attempted since entering college, including work from all previously attended institutions.
- **Academic Warning:** Some first-time-in-college applicants who do not meet University admission requirements may be admitted on Academic Warning. By obtaining a 2.0 GPA ("C" average) or better at the end of the first semester of attendance, Academic Warning will be removed. Earning less than a "C" average the first term will result in Academic Probation. A student may be on Academic Warning only once.
- **Academic Probation:** Action taken when a student’s UCF cumulative or overall GPA drops below 2.0. Academic Probation will continue until the current term, UCF cumulative, and overall GPA reach 2.0 or better.
- **Disqualified (First Suspension):** A student on Academic Probation is disqualified upon failure to achieve a 2.0 GPA during the subsequent semester. A student who is disqualified may not enroll at the University for two semesters following disqualification. Readmission after two
Exclusion

Exclusion (Second Suspension):

A disqualified student must submit an application for readmission supported by a letter indicating the reasons for previous academic difficulties and plans for achieving a GPA of 2.0 or better. The total record will be reviewed and action on readmission will be taken by the University Registrar. When the University Registrar cannot make a favorable decision, cases will be referred to the Admissions and Standards Committee. A student readmitted following disqualification who fails to achieve a 2.0 GPA is excluded from the University. Exclusion is most serious and readmission will not be considered prior to a minimum suspension period of one year.

Readmission:

If a student has dropped out of the University for any reason, he or she must reapply on the appropriate form (see calendar for deadline).

First-time-in-college students may be admitted on Academic Warning (see above) or Academic Probation at the discretion of the Admissions Office or the Admissions and Standards Committee. Transfer students may be admitted on Academic Probation at the discretion of the Admissions Office or the Admissions and Standards Committee. Academic Probation is intended to inform students making unsatisfactory progress of their need to alter study habits and to seek additional counseling. Early recognition will indicate to the student the possible jeopardy to academic goals, and will also allow an opportunity to demonstrate acceptable performance.

RELIGIOUS OBSERVANCES

It is the policy of the University of Central Florida to reasonably accommodate the religious observances, practices, and beliefs of individuals in regard to admissions, class attendance, and the scheduling of examinations and work assignments.

A student who wishes to observe a religious holy day of his or her religious faith will notify all of his/her instructors and be excused from class to observe the religious holy day. The Student will be held responsible for any material covered during the excused absence, but will be permitted a reasonable amount of time to complete any work missed. Where practicable, major examinations, major assignments, and university ceremonies will not be scheduled on a major religious holy day.

Students who are absent from academic or social activities because of religious observances will not be penalized. A student who believes that he/she has been unreasonably denied an educational benefit due to his/her religious belief or practices may seek redress in accordance with Rule 6C7-5.0031, Student Grievance Procedure.


EARNING CREDIT WHILE DISQUALIFIED OR EXCLUDED

Students disqualified or excluded while a Freshman or Sophomore who subsequently receive an A.A. degree with a "C" average (2.0 GPA) on all college work attempted from a Florida public community college may be readmitted to the University with credit earned in accordance with standard University policies.

Students who attend other colleges or universities following disqualification will be classified as transfer students and their readmission will be based on their total educational record.

INCOMPLETE GRADE

A grade of "I" (incomplete) is assigned by the instructor when a student is unable to complete a course due to extenuating circumstances, and when all requirements can be completed in a short time following the end of the term. The student is responsible to arrange with the instructor for the completion of the incomplete grade by the deadline published in the Academic Calendar for the next term. If the incomplete is not changed by the established deadline, it may become a part of the student's permanent record with no credit given for the class, or the instructor may assign a grade of "F". An "I" cannot be removed by Grade Forgiveness. Academic actions are not affected by the change of an "I".
INSTRUCTORS PLEASE NOTE: A grade is assigned using the Change of Grade Form. After the form is signed by the Dean of the College offering the course, the Dean sends it to the Registrar’s Office.

SCHEDULE CHANGES — ADD/DROP POLICY

Add: A student may add a course during the official Add/Drop period (the first three to five days of each term, as listed in the academic calendar). After the Add/Drop period, no course may be added.

Drop: A student may drop a course during the official Add/Drop period. The fact that the student was enrolled in a class so dropped will not appear on the permanent record. For withdrawal after the Add/Drop period, the Withdrawal Policy must be consulted.

WITHDRAWAL POLICY

A student may withdraw from a class and receive the notation of "W" until the end of the eighth week of any regular semester or until the midpoint of any summer term in the Registrar’s Office, Administration Building 161.

A student is never automatically withdrawn from a class for not attending, nor can an instructor withdraw a student from a class. Upon request, however, the instructor will provide the student with an assessment of the student's performance in the course prior to the last day of withdrawal.

No withdrawal is permitted after the deadline except in extraordinary circumstances such as serious medical problems. Unsatisfactory academic performance is not an acceptable reason for withdrawal after the deadline. Students who need to petition for a late withdrawal should consult Enrollment and Academic Services, Administration Building, Room 210. At the time of the request an Assistant Dean from Enrollment and Academic Services will ascertain from the instructor whether the student was passing or failing the course. If the student was passing, a "WP" will be recorded on the student's permanent record; if failing, a "WF" will be entered.

Medical and late withdrawals are normally for all courses taken in the semester. Students who seek withdrawal because they are ill must apply for the withdrawal no later than the term following the one from which the withdrawal is sought. Students seeking a late withdrawal because of medical conditions must follow the medical withdrawal procedure. The student's physician provides the University physician with the appropriate medical information, using the forms available in the Office of Enrollment and Academic Services. The University physician evaluates this information and forwards a recommendation to Enrollment and Academic Services.

If a medical withdrawal is approved, a "WM" will be recorded for each course.

If a medical withdrawal is not approved, the request may be approved as a late withdrawal, and grades of "WP" or "WF" will be recorded.

A grade of "WF" will affect the calculation of the student's grade point average (the procedure used for calculating is further defined in the paragraph titled "Grading System" earlier in this section).

If a student withdraws from a course while an alleged academically dishonest act is under consideration, and the case is not subsequently resolved in favor of the student, the University reserves the right to assign the appropriate grade for the course.

TRANSIENT ENROLLMENT AT OTHER INSTITUTIONS

A UCF degree-seeking student who wishes to earn credit at another college or university for transfer back into a degree program must obtain prior approval for specific courses from the Dean or Department Chair of his/her respective college. Approval of courses for the General Education Program should be obtained from Enrollment and Academic Services. Credit earned without this transient approval may not be accepted. Because of graduation certification, students may not take courses in transient status during the term in which they expect to graduate. Transient forms are available in the college of the student's major. Transient credit cannot be used to reduce the last 30 semester hour residency requirement for a baccalaureate degree, the last 20 semester hour residency requirement for an Associate of Arts degree, or any departmental residency requirements.
GRADE FORGIVENESS

Policy

Limits: Grade forgiveness is limited to two courses.

• Grade forgiveness can be used only for courses taken at UCF. Grade forgiveness is not retroactive, and therefore may not be used for a course repeated before Fall 1981.
• UCF does not honor grade forgiveness granted at other institutions unless it is part of an Associate of Arts degree transferred to UCF from a Florida public community college or university. Because of the two-course limit, a student who has used grade forgiveness twice at another institution, and has included those courses in the transfer of an Associate of Arts degree may not use grade forgiveness again at UCF.
• A course taken at UCF may not be repeated at another institution for forgiveness by UCF.
• Grade forgiveness may not be used twice for the same course.
• Registration for grade forgiveness must be completed by the end of the Add/Drop period in the term in which the course is repeated.

If a student withdraws from a course repeated under the Grade Forgiveness Policy or receives an incomplete in the course, the attempt will count as one of the two allowable attempts. However, the original grade will not be replaced with the "I" or the "W" received in the repeat attempt. The student may not petition a second time for the same course.

General Policy: All grades will remain on the student's official transcript. The original course grade will be marked with a "T" to indicate that the course has subsequently been repeated, and the repeat course grade will be marked with an "R." The original grade will not be computed in the grade point average except in a case in which the student withdraws from a course he/she is repeating or takes a grade of incomplete.

With prior approval of the Dean of the college in which the course is offered, the student may substitute a course different from the original one if (1) the substitute course has been changed in prefix, number, hours, or title, but not in substance, or (2) the substitute course replaced a course no longer offered by UCF.

Grade forgiveness awarded for repeated courses will not retroactively alter any previous academic action. For example, a Probation or Disqualification status will not be removed from the records of the quarter or semester in which the student originally took the course. In addition, no academic records can be altered after a student graduates.

If it is determined that the student is ineligible for the forgiveness policy, neither a refund of fees nor automatic withdrawal from the course will be made.

Procedure

Students who wish to exercise Grade Forgiveness must complete the following steps before registering to repeat a course:
1. Complete a "Grade Forgiveness Request Form" from the Office of Records and Registration for each course to be repeated.
2. If the course is a substitution for the original one (see above), secure the signature of the Dean of the college in which the course is offered.
3. Turn the completed form in to the Office of Records and Registration no later than the last day of Add/Drop. No petitions will be accepted after the deadline.

Any questions about Grade Forgiveness should be directed to Enrollment and Academic Services, AD 210, Phone (407) 823-2691.

ACADEMIC HONORS

1. President's Honor Roll Certificate
The President's Honor Roll Certificate is awarded in recognition of scholastic honors to regular undergraduate students who register for and complete 12 or more hours, excluding pass-fail course work, and maintain a 4.0 GPA with no incomplete or "U" grades for the given term or who complete 15 semester hours during any two consecutive terms at UCF with no more than 11 hours in any one term, excluding pass-fail work, and maintain a 4.0 GPA for the two terms.
Hours utilized in the awarding of a President’s Honor Roll Certificate may not be utilized in the determination of a subsequent certificate.

2. Dean’s List
The Dean’s List is compiled in recognition of scholastic honors for students who earn a 3.4 GPA with no grade less than “C” and no incomplete or “U” grades during a term. To be eligible for the Dean’s List students must register for and complete a minimum of 12 semester hours in a Fall or Spring semester or 9 semester hours in a Summer semester.

3. Baccalaureate Honors
The University shall confer baccalaureate honors recognition on those students who have completed a minimum of 48 semester hours at UCF and who:
A. Attain an overall grade point average which is in the upper 10% of the range established by all students graduating in the same college during the previous two years
B. Attain at least a 3.2 overall grade point average
C. Honors awarded will be:
   1. Summa Cum Laude for those students in the upper 2.5%.
   2. MagnaCum Laude for those students in the upper 5%, but not in the upper 2.5%.
   3. Cum Laude for those students in the upper 10%, but not in the upper 5%.
Since records for the semester of graduation are incomplete at the time of graduation, that term is excluded in determining recognition in the commencement bulletin and at graduation. Identification of these students at graduation is therefore presumptive of honors and not conclusive, since final term grades may result in changes in relative rankings.

TIME-SHORTENED DEGREE OPPORTUNITIES
The University of Central Florida provides a number of options by which students may shorten the time required to complete the baccalaureate degree. These options permit the University to recognize high levels of academic achievement and acquisition of knowledge prior to or during attendance at the University. Procedures which may be used include the College Level Examination Program (CLEP), the Advanced Placement Program (AP), the International Baccalaureate, and University Course Credit by Examination.

College Level Examination Program (CLEP)
The University of Central Florida grants University credit for examinations taken under the CLEP program provided the score obtained is at the 50th percentile or above on the National Sophomore CLEP norms. The University of Central Florida will award up to 45 semester hours of University credit under the CLEP program. CLEP credit may be earned by the following methods — CLEP general examinations, CLEP general examination subtests, and CLEP subject examinations. A student may earn a maximum of 45 semester hours of credit through this program. Successful completion of CLEP examinations means performance at or above the 50th percentile.

Awarding of CLEP credit is subject to the conditions listed below.
1. Credit may be awarded in the CLEP general examination, CLEP general subtest area, or CLEP subject examination area, provided the student (a) is not within 60 semester hours of graduation, (b) has not previously received comparable college course credit in the CLEP examination area, (c) does not receive comparable college credit in the CLEP examination area in the same semester the examination is taken or in a subsequent semester, (d) has not previously completed nor received credit by UCF (transfer or otherwise) in a more advanced course in the examination area, and (e) does not complete nor receive credit by UCF (transfer or otherwise) in a more advanced course during the semester in which the CLEP examination is taken.
2. Partial credit may be awarded in Humanities and Social Science-History general examinations to students who have course duplication in one subtest area but not in the other subtest area. For example, a student who has completed Humanities but has not completed Introductory Literature or a more advanced literature course would be eligible to receive credit in the literature subtest area, provided that he/she receives a satisfactory total score and a satisfactory subtest score.

The following table provides information related to the CLEP general examination areas and subtest areas for which credit may be awarded. In addition, this table delineates the number of
credit hours per examination, and the minimum qualifying score. A table is also provided which contains information about CLEP subject examinations. The table delineates CLEP subject examinations which are available, qualifying scores for each examination, the UCF course for which each examination can substitute, and semester hours which will be awarded.

It is important to note that a maximum of 45 semester hours in any combination of extension, correspondence, CLEP, Armed Forces Service School Credits, and University Credit by Examination will be accepted by the University for application toward an undergraduate degree. In addition, CLEP credit cannot be used to reduce a grade point deficiency. For example, CLEP cannot be substituted for a grade awarded for a previously completed course. CLEP may not be used to fulfill the senior institution requirements.

**CLEP GENERAL EXAMINATIONS**
Qualifying scores on CLEP General Examinations earn only general (lower division) elective credit.

<table>
<thead>
<tr>
<th>CLEP General Examination</th>
<th>Qualifying Score</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>English Composition with Essay*</td>
<td>500</td>
<td>6</td>
</tr>
<tr>
<td>Humanities</td>
<td>489</td>
<td>6</td>
</tr>
<tr>
<td>Mathematics</td>
<td>497</td>
<td>6</td>
</tr>
<tr>
<td>Natural Science</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Biological Science</td>
<td>50</td>
<td>3</td>
</tr>
<tr>
<td>Physical Science</td>
<td>49</td>
<td>3</td>
</tr>
<tr>
<td>Social Science</td>
<td>486</td>
<td>6</td>
</tr>
</tbody>
</table>

*The General Examination in English Composition with Essay is not given in July or August.

**CLEP SUBJECT EXAMINATIONS**

<table>
<thead>
<tr>
<th>CLEP Subject Exam</th>
<th>Semester Hours</th>
<th>Qualifying Score</th>
<th>UCF Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Afro-American History</td>
<td>3</td>
<td>50</td>
<td>None</td>
</tr>
<tr>
<td>American Government</td>
<td>3</td>
<td>50</td>
<td>POS 2041</td>
</tr>
<tr>
<td>American History I***</td>
<td>3</td>
<td>49</td>
<td>AMN 2010</td>
</tr>
<tr>
<td>American History II***</td>
<td>3</td>
<td>49</td>
<td>AMH 2020</td>
</tr>
<tr>
<td>American Literature***</td>
<td>6</td>
<td>50</td>
<td>AML 3031 and AML3</td>
</tr>
<tr>
<td>Analysis &amp; Interp Lit***</td>
<td>6</td>
<td>51</td>
<td>ENC 1101 and LIT 30</td>
</tr>
<tr>
<td>Calculus w/Elem Functions</td>
<td>4</td>
<td>49</td>
<td>MAC 3311</td>
</tr>
<tr>
<td>Calculus w/Analytic Geo</td>
<td>3</td>
<td>49</td>
<td>MAC 3253</td>
</tr>
<tr>
<td>Clinical Chemistry**</td>
<td>6,7</td>
<td>50</td>
<td>MLS 4630</td>
</tr>
<tr>
<td>College Algebra</td>
<td>3</td>
<td>48</td>
<td>MAC 1104</td>
</tr>
<tr>
<td>College Algebra &amp; Trig</td>
<td>3</td>
<td>50</td>
<td>MAC 1104 or</td>
</tr>
<tr>
<td>(Duplicate CLEP Exam - Subj: Trig)</td>
<td></td>
<td></td>
<td>MAC 1114</td>
</tr>
<tr>
<td>College Comp w/Essay***</td>
<td>6</td>
<td>50</td>
<td>ENC 1101</td>
</tr>
<tr>
<td>(Duplicate CLEP Exam</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subj: Freshman Comp w/Essay ***</td>
<td>6</td>
<td>50</td>
<td>ENC 1101</td>
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<tr>
<td>Computer Programming</td>
<td>3</td>
<td>51</td>
<td>CGS 1060</td>
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<td>Educational Psychology</td>
<td>3</td>
<td>49</td>
<td>None</td>
</tr>
<tr>
<td>English Literature***</td>
<td>6</td>
<td>49</td>
<td>ENL 3031 or ENL 305</td>
</tr>
<tr>
<td>Freshmen English w/Essay***</td>
<td>6</td>
<td>51</td>
<td>ENC 1101</td>
</tr>
<tr>
<td>General Biology ****</td>
<td>6</td>
<td>49</td>
<td>BSC 1020</td>
</tr>
<tr>
<td>General Chemistry ****</td>
<td>6</td>
<td>50</td>
<td>CHM 1020 and 1032</td>
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<tr>
<td>General Psychology</td>
<td>3</td>
<td>50</td>
<td>PSY 2013</td>
</tr>
<tr>
<td>Hematology **</td>
<td>6,7</td>
<td>51</td>
<td>MLS 3305</td>
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<tr>
<td>Human Growth and Development</td>
<td>3</td>
<td>51</td>
<td>None</td>
</tr>
<tr>
<td>Immunohematology **</td>
<td>6,7</td>
<td>50</td>
<td>MLS 4550</td>
</tr>
<tr>
<td>Introduction to Accounting</td>
<td>3</td>
<td>50</td>
<td>ACG 2001</td>
</tr>
<tr>
<td>Introduction to Business Law</td>
<td>6</td>
<td>51</td>
<td>None</td>
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<tr>
<td>Introduction to Management</td>
<td>3</td>
<td>49</td>
<td>None</td>
</tr>
<tr>
<td>Course</td>
<td>Credits</td>
<td>Hours</td>
<td>UCF Course(s)</td>
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<tr>
<td>---------------------------------</td>
<td>---------</td>
<td>-------</td>
<td>--------------------------------</td>
</tr>
<tr>
<td>Intro to Macroeconomics</td>
<td>3</td>
<td>50</td>
<td>ECO 2013</td>
</tr>
<tr>
<td>Intro to Microeconomics</td>
<td>3</td>
<td>50</td>
<td>ECO 2023</td>
</tr>
<tr>
<td>Intro to Marketing</td>
<td>3</td>
<td>50</td>
<td>MAR 3023</td>
</tr>
<tr>
<td>Intro to Sociology</td>
<td>6</td>
<td>50</td>
<td>SYG 2000</td>
</tr>
<tr>
<td>Language: French</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>German</td>
<td>6/9/12</td>
<td>44/49/56</td>
<td>Corresponding 1120 and 1121,</td>
</tr>
<tr>
<td>Spanish</td>
<td>6/9/12</td>
<td>43/52/55</td>
<td>2200* and 2201* and 2230 and 2231*</td>
</tr>
<tr>
<td>Microbiology (clinical) **</td>
<td>6</td>
<td>49</td>
<td>MLS 4405</td>
</tr>
<tr>
<td>Programming - FORTRAN IV</td>
<td>3</td>
<td>48</td>
<td>COP 1200</td>
</tr>
<tr>
<td>Trigonometry</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Duplicate CLEP Exam)</td>
<td>3</td>
<td>54</td>
<td>MAC 1114</td>
</tr>
<tr>
<td>Subj: Comp and Data Proc</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Western Civilization I ***</td>
<td>3</td>
<td>49</td>
<td>EUH 2000</td>
</tr>
<tr>
<td>Western Civilization II ***</td>
<td>3</td>
<td>48</td>
<td>EUH 2001</td>
</tr>
</tbody>
</table>

*Those students receiving six or nine hours are allowed to complete these courses.

**Each student must also satisfactorily complete a lab and an essay exam. Both exams will be given by the College of Health.

***Satisfactory completion of these exams does not reduce the 24,000 word requirement of the Gordon Rule.

****Does not satisfy General Education Program science laboratory requirement.

### ADVANCED PLACEMENT PROGRAM (AP)

Students who have participated in the Advanced Placement Program in high school and received a score of three, four, or five on the national examinations will receive college credit in the appropriate subject areas. Students should consult their high school guidance counselor or write to the Educational Testing Service, Princeton, NJ 08540, for additional information.

#### ADVANCED PLACEMENT EXAMINATIONS

<table>
<thead>
<tr>
<th>Examination</th>
<th>Passing Score</th>
<th>Semester Hours Awarded</th>
<th>UCF Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology</td>
<td>3-5</td>
<td>3</td>
<td>BSC 1020</td>
</tr>
<tr>
<td>Chemistry</td>
<td>3-4</td>
<td>4</td>
<td>CHM 2045 and CHM 2045 L</td>
</tr>
<tr>
<td>Computer Sci A</td>
<td>4-5</td>
<td>3</td>
<td>GEP, C.2</td>
</tr>
<tr>
<td>Computer Sci AB</td>
<td>4-5</td>
<td>3</td>
<td>no direct equivalent</td>
</tr>
<tr>
<td>Eng Lang &amp; Comp 3</td>
<td>3</td>
<td>6</td>
<td>ENC 1101</td>
</tr>
<tr>
<td>Eng Lit &amp; Comp</td>
<td>3</td>
<td>6</td>
<td>ENC 1101 &amp; 1102</td>
</tr>
<tr>
<td>Microeconomics</td>
<td>3-5</td>
<td>3</td>
<td>ECO 2023</td>
</tr>
<tr>
<td>Macroeconomics</td>
<td>3-5</td>
<td>3</td>
<td>ECO 2013</td>
</tr>
<tr>
<td>French Language</td>
<td>3</td>
<td>3</td>
<td>FRE 3420</td>
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<tr>
<td></td>
<td>4-5</td>
<td>6</td>
<td>FRE 3420 + 3 hours general elective</td>
</tr>
<tr>
<td>French Literature</td>
<td>3</td>
<td>3</td>
<td>FRW 3100</td>
</tr>
<tr>
<td></td>
<td>4-5</td>
<td>6</td>
<td>FRW 3100 &amp; 3101</td>
</tr>
<tr>
<td>German</td>
<td>3</td>
<td>3</td>
<td>GER 1120</td>
</tr>
<tr>
<td></td>
<td>4-5</td>
<td>6</td>
<td>GER 1120 + general elective</td>
</tr>
<tr>
<td>U.S. History</td>
<td>3-5</td>
<td>3</td>
<td>AMH 2010</td>
</tr>
<tr>
<td>European History</td>
<td>3-5</td>
<td>3</td>
<td>EUH 2001</td>
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<tr>
<td>Psychology</td>
<td>3-5</td>
<td>3</td>
<td>PSY 2013</td>
</tr>
<tr>
<td>Latin (Virgil)</td>
<td>3-5</td>
<td>3</td>
<td>no direct equivalent</td>
</tr>
<tr>
<td>Subject Area</td>
<td>Qualifying Score</td>
<td>Credit Awarded</td>
<td>UCF Courses</td>
</tr>
<tr>
<td>-------------------------</td>
<td>------------------</td>
<td>----------------</td>
<td>-------------</td>
</tr>
<tr>
<td>Latin (Catulus, Horace)</td>
<td>3-5</td>
<td>3</td>
<td>no direct equivalent</td>
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<tr>
<td>Calculus AB</td>
<td>3-5</td>
<td>8</td>
<td>MAC 3311 and MAC 3312</td>
</tr>
<tr>
<td>Calculus BC</td>
<td>3-5</td>
<td>12</td>
<td>MAC 3311, 3312, and 3313</td>
</tr>
<tr>
<td>U.S. Gov. &amp; Politics</td>
<td>3-5</td>
<td>3</td>
<td>POS 2041</td>
</tr>
<tr>
<td>Comp. Gov. &amp; Politics</td>
<td>3-5</td>
<td>3</td>
<td>CPO 3103</td>
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<tr>
<td>Music Theory</td>
<td>3-5</td>
<td>4</td>
<td>MUT 2111 and 1241</td>
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<tr>
<td>Physics B</td>
<td>3</td>
<td>3</td>
<td>PSC 1121</td>
</tr>
<tr>
<td></td>
<td>4-5</td>
<td>3</td>
<td>PHY 3053</td>
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<tr>
<td>Physics C (Mechanics)</td>
<td>3-4</td>
<td>4</td>
<td>PHY 3053</td>
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<tr>
<td></td>
<td>5</td>
<td>3</td>
<td>PHY 3048</td>
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<tr>
<td>Physics C (Electricity and Magnetism)</td>
<td>3-4</td>
<td>4</td>
<td>PHY 3054C</td>
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<td>5</td>
<td>3</td>
<td>PHY 3049</td>
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<tr>
<td>Spanish Language</td>
<td>3</td>
<td>3</td>
<td>SPN 1120</td>
</tr>
<tr>
<td></td>
<td>4-5</td>
<td>6</td>
<td>SPN 1120 + general elective</td>
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<td>Spanish Literature</td>
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<td>3</td>
<td>no direct equivalent</td>
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<td></td>
<td>4-5</td>
<td>6</td>
<td>no direct equivalent</td>
</tr>
<tr>
<td>Classics</td>
<td>3-5</td>
<td>3</td>
<td>HUM 2211</td>
</tr>
<tr>
<td>History of Art</td>
<td>3-4</td>
<td>3</td>
<td>ARH 2050</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>6</td>
<td>ARH 2050 and ARH 2051</td>
</tr>
<tr>
<td>Studio Art (General)</td>
<td>3-5</td>
<td>3-6</td>
<td>To be assigned by Art Dept.</td>
</tr>
<tr>
<td>Studio Art (Drawing)</td>
<td>3-5</td>
<td>3-6</td>
<td>To be assigned by Art Dept.</td>
</tr>
</tbody>
</table>

**INTERNATIONAL BACCALAUREATE PROGRAM**

Students who have participated in the International Baccalaureate program in high school may receive a maximum of thirty hours of credit for scores of 4 or higher in the subsidiary and higher level program areas.

<table>
<thead>
<tr>
<th>Subject Area</th>
<th>Qualifying Score</th>
<th>Credit Awarded</th>
<th>UCF Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applied Chemistry</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Higher Level</td>
<td>4,5,6,7</td>
<td>3</td>
<td>CHM 1032</td>
</tr>
<tr>
<td>Subsidiary</td>
<td>4,5,6,7</td>
<td>3</td>
<td>CHM 1032</td>
</tr>
<tr>
<td>Art Design</td>
<td></td>
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<tr>
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<td>Biology</td>
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<td>Chemistry</td>
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<td>Higher Level</td>
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<td>3</td>
<td>CHM 1032</td>
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<tr>
<td>Subsidiary Level</td>
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<td>CHM 1032</td>
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<td>Computer Science</td>
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<td>3</td>
<td>No direct equivalent, will satisfy GEP computer science requirements</td>
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<tr>
<td>Economics</td>
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<td>Higher Level</td>
<td>4,5,6,7</td>
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<td>English</td>
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<td>Foreign Languages</td>
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<td>Higher Level</td>
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<td>French, Spanish, German</td>
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<tr>
<td>Subject</td>
<td>Level</td>
<td>Credits</td>
<td>Equivalent Courses</td>
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<td>---------------------------------</td>
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<td>---------</td>
<td>---------------------------------------------</td>
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<td>Others</td>
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<td>GER 3420</td>
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<tr>
<td>French, Spanish</td>
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<td>3</td>
<td>FRW 3100, SPW 3100</td>
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<td>Others</td>
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<td>Geography</td>
<td>Higher</td>
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<td>History</td>
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<td>Mathematics with Further Studies</td>
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<td>4,5,6,7</td>
<td>MAC 3311</td>
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<td>4,5,6,7</td>
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<td>Music</td>
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<td>Organizational Studies</td>
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<td>4,5,6,7</td>
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<tr>
<td>Philosophy</td>
<td>Higher</td>
<td>4,5,6,7</td>
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<td>4,5,6,7</td>
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<td>Physics</td>
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<td>4,5,6,7</td>
<td>PHY 3053C &amp; PHY 3054C</td>
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<td>PHY 3053C &amp; PHY 3054C</td>
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<td>Higher</td>
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<tr>
<td>Social Anthropology</td>
<td>Higher</td>
<td>4,5,6,7</td>
<td>ANT 2003</td>
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<td>5,6,7</td>
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<td>Subsidiary</td>
<td>5,6,7</td>
<td>ANT 3410</td>
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</table>

* - To be determined by department review

Credit by Examination

Regularly enrolled undergraduate students at the University of Central Florida may obtain credit for specific University courses through department examinations. Those who feel they have acquired the knowledge and/or skills of a specific University course should consult their advisor and the chair of the department in which the course is offered to arrange for an examination. Degree credit will be awarded for those courses successfully completed by departmental examination. Credit by examination may not be used to reduce the 30 semester hours residency requirement. Credit by examination will not be given for any course lower in content than courses in the same discipline (i.e., with the same rubric) in which students are currently enrolled or which they have already completed. Permission to take an examination is approved by the chair of the department and the Dean of the college in which the course is offered.

*Excludes transient and non degree-seeking students.
UNDERGRADUATE DEGREE REQUIREMENTS

REQUIREMENTS FOR GRADUATION

Students must fulfill both the requirements for a major and University graduation requirements to receive a degree from the University of Central Florida.

To earn a bachelor's degree from UCF, students must:

- Fulfill the requirements for the chosen major
- Earn a minimum of 120 unduplicated semester credit hours with at least a "C" average (2.0 GPA, both UCF and overall) for course work attempted. Some majors require more than 120 hours.
- Earn a minimum of 60 of these 120 semester credit hours from a senior institution (an institution which offers baccalaureate degrees).
- Earn at least 48 of these 120 semester credit hours in 3000-level courses or above.
- Earn the last 30 semester hours in regular courses at UCF. Credit by examination may not be used to satisfy this requirement.
- Earn a minimum of 25% of the total hours required for the degree in residence at UCF. For programs which require the minimum of 120 total hours, residency will be 30 hours. For programs which exceed 120 hours, the specific residency requirement increases proportionally and is listed with the requirements for the specific degree program.
- Earn a minimum of 60 semester hours after CLEP credit has been awarded.
- Apply no more than 45 semester hours in any combination of extension, correspondence, CLEP, University Credit by Examination and Armed Forces credits toward an undergraduate degree.
- Fulfill the General Education requirements defined elsewhere in this section.
- Fulfill the Gordon Rule requirements defined elsewhere in this section.
- Fulfill the Foreign Language Proficiency requirements defined elsewhere in this section.
- Fulfill the CLAST requirement defined elsewhere in this section.
- Earn a minimum of nine semester hours during summer terms, if applicable.

COMPLETION OR GRADUATION RATE DISCLOSURES

The completion or graduation rate is the rate at which full-time, certificate-seeking or degree-seeking undergraduate students who are enrolling for the first time at the institution, and have not previously enrolled at any other institution of higher education, either complete or graduate from their programs. The retention rate of Fall 1993 students is 74%. The information is publicized and available for review in the UCF Library and other student publications.

CHOICE OF CATALOG AND CONTINUOUS ENROLLMENT

A student must graduate under the provisions of any UCF catalog in effect since the student began continuous enrollment at UCF. However, students transferring from Florida public community colleges or state universities may use the UCF catalog in effect at the time they began the most recent period of continuous enrollment in academic good standing at any of the Florida public institutions. Continuous enrollment is defined as being enrolled in classes without a break of two or more consecutive regular semesters (i.e., Fall and Spring, or Spring, Summer, and Fall). Continuous enrollment is automatically broken when a student moves from one transfer institution to another following academic disqualification or exclusion.

Students must use a single catalog and not a combination of catalogs for graduation. In cases when required courses are no longer taught by the university, the appropriate department, college, or university office may designate a reasonable substitute.

If students should wish to change their catalog for graduation, they should first discuss with their advisors how such a change would affect university, college, and major requirements. If
students should decide to request a change, they should fill out a Catalog Change form in the Records Office, Administration Building, First Floor.

GENERAL EDUCATION PROGRAM

The purposes of the UCF General Education Program (GEP) are to introduce students to a broad range of human knowledge and intellectual pursuits, to equip them with the analytic and expressive skills required to engage in those pursuits, to develop their ability to think critically, and to prepare them for life-long learning. The GEP curriculum provides students with the intellectual, ethical, and aesthetic foundations necessary to make informed choices; to accept the responsibilities of working and living in a rapidly changing world; and to lead a productive and satisfying life.

Courses which fulfill the General Education requirements are specified, but in some cases an advanced course in the same discipline may be substituted for GEP requirements with the approval of Enrollment and Academic Services. Students should consult both with an advisor and with Enrollment and Academic Services before submitting any course.

Undergraduate students who have not completed requirements for the Associate of Arts degree and who wish to transfer to another Florida public university can have their transcripts stamped GENERAL EDUCATION REQUIREMENTS MET if they have completed UCF's GEP requirements with a GPA of 2.0 or better. UCF will accept a similar statement on transcripts received from Florida public community colleges and universities in lieu of completion of the University's General Education Program. Students enrolled in classes that use the "NC" grade must earn a grade of "C" or better.

GENERAL EDUCATION PROGRAM COURSES
(36 semester hours required)

A. Communication Foundations
1. ENC 1101 English Composition I 1,2 3(3,0)
2. ENC 1102 English Composition II PR: ENC 1101 1,2 3(3,0)
3. SPC 1600 Fundamentals of Oral Communication 3(3,0)
or
SPC 1XXX Oral Communication for the Engineering and Technical Professions 3(3,0)

B. Cultural and Historical Foundations
1. Take one of the following two-semester sequences: (6 Hours)
   EUH 2000 Western Civilization I and 2 3(3,0)
   EUH 2001 Western Civilization II 2 3(3,0)
or
   HUM 2211 Western Humanities I 2and 3(3,0)
   HUM 2230 Western Humanities II 2 3(3,0)
or
   AMH 2010 U.S. History: 1492-1877 2and 3(3,0)
   AMH 2020 U.S. History: 1877-present 2 3(3,0)

2. Take one course from the following: (3 Hours)
   ARH 2050 The History of Art I 3(3,0)
   ARH 2051 The History of Art II 3(3,0)
   MUL 2010 Enjoyment of Music 3(2,1)
   THE 1020 Theatre Survey 3(3,0)
   THE 2071 Cinema Survey 3(3,0)
   REL 2300 World Religions 3(3,0)
   PHI 2010 Introduction to Philosophy 3(3,0)
   LIT 2110 World Literature I PR: ENC 1102 2 3(3,0)
   LIT 2120 World Literature II PR: ENC 1102 2 3(3,0)
C. Mathematical Foundations 6 Hours
Take one course from each group. Some majors require a specific course or a higher level course in this area. Consult your advisor:

1. MAC 1104 College Algebra 3 3(3,0)
   MGF 1203 Finite Mathematics 3 3(3,0)
2. CGS 1060C Introduction to Computer Science 3 3(3,0)
   STA 2014 Principles of Statistics 3 3(3,0)

D. Social Foundations 6 Hours
Take one course from each group.

1. ECO 2013 Principles of Economics I 3(3,0)
   ECO 2023 Principles of Economics II 3(3,0)
   POS 2041 American National Government 3(3,0)
2. PSY 2013 General Psychology 3(3,0)
   SYG 2000 General Sociology 3(3,0)
   ANT 2003 General Anthropology 3(3,0)

E. Science Foundations 6 Hours
Take one course from each group. Some majors require a specific course or a higher level course in this area. Consult your advisor:

1. PSC 1121 Physical Science PR: MAC 1104 or MGF 1203 3(3,0)
   PHY 3053C College Physics PR:MAC 1104 and MAC 1114 4(3,3)
   CHM 1020 Concepts in Chemistry PR:MAC 1104 or MGF 1203 3(3,0)
2. BSC 1020 Biological Principles 3(3,0)
   BSC 1030 Biology and Environment 3(3,0)
   BOT 1000 Plant Science 3(3,0)
   GLY 1030 Geology & Its Applications 3(3,0)
   GEO 1200 Physical Geography 3(3,0)
   ANT 3511 The Human Species 3(3,0)

1A grade of "C" or better is required in this course
2A grade of "C" or better in this course satisfies three hours of the Gordon Rule requirement in English composition. In addition any upper-division course in composition or literature taught by the UCF English Department and selected upper-division courses taught by the UCF History Department also satisfy three hours of the English composition requirement, if the course is completed with a grade of "C" or better. A list appears in "The Gordon Rule" this section.
3A grade of "C" or better satisfies three hours of the Gordon Rule requirement in mathematics. In addition, a grade of "C" or better in any higher level course in mathematics, statistics, or computer science also satisfies three hours of the mathematics requirement.

Substitution Of Courses — General Education Program and Other Requirements

The Student Academic Support System (S.A.S.S.) routinely coordinates the evaluation of transfer courses for the University's General Education Program and Foreign Language Proficiency requirements. When the transfer course work is entered into the UCF computer system (usually during the first semester at UCF), S.A.S.S. will request course descriptions and other information to provide a sufficient basis for evaluation. Courses are evaluated on the basis of equivalency with the content of the courses required by the University. The evaluation conducted is entered into a computerized degree audit system and is then available to the colleges and departments through the University's computer network. Appeals of decisions made by S.A.S.S. should be directed to Dr. David Dees, Assistant Dean, Enrollment and Academic Services, AD 210. Substitution requests for college or major requirements are processed within those administrative offices.

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Alternative Courses - General Education Program

Courses which may be taken in substitution for the stated GEP requirements are given below.

<table>
<thead>
<tr>
<th>GEP REQUIREMENTS</th>
<th>ACCEPTABLE SUBSTITUTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAC 1104 (College Algebra)</td>
<td>MAC 1114, MAC 3233, MAC 3253, MAC 3254, MAC 3311, MAC 3312, MAC 3313</td>
</tr>
<tr>
<td>ECO 2013 (Macro Economics)</td>
<td>Any higher level ECO course which has ECO 2013 as a prerequisite ECO 2023 (Micro Economics)</td>
</tr>
<tr>
<td>PHY 3053C (Physics)</td>
<td>PHY 3048, PHY 3049, PHY 3054C, PHY 3014C, PHY 5015</td>
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<tr>
<td>CHM 1020 (Chemistry)</td>
<td>CHM 2045, CHM 1032, CHS 1440</td>
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<tr>
<td>BSC 1020C or BSC 1030C (Biology)</td>
<td>BSC 2010C</td>
</tr>
<tr>
<td>GEO 1200 (Geography)</td>
<td>GEO 3370</td>
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<tr>
<td>CGS 1060C (Intro to Computer)</td>
<td>CGS 3000, CGS 3422, COP 1200, COT 3100</td>
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<tr>
<td>STA 2014 (Statistics)</td>
<td>STA 3023, STA 3032</td>
</tr>
</tbody>
</table>

FOREIGN LANGUAGE PROFICIENCY REQUIREMENT

Students graduating with a Bachelor of Arts degree must demonstrate proficiency in a foreign language equivalent to one year of college instruction. This requirement may be met either by successful completion of the appropriate college-level course or by examination. Languages which may be used include those taught at UCF and any others for which the University can obtain standardized proficiency tests. Students who have previously received a baccalaureate are exempt from this requirement.

For specific guidelines concerning proper placement in foreign language classes, please see section: Dept. of Foreign Languages and Literatures, under the heading, Placement and Proficiency.

Some Departments and Colleges have additional requirements. See "special college and/or departmental requirements" within each departmental listing.

1. This requirement is for proficiency and not a requirement for a particular number of hours of course work. For example, successful completion of only SPN 1121 (Elementary Spanish Language and Civilization II) would satisfy the B.A. requirement. Appropriate scores on Advanced Placement and CLEP examinations will also satisfy the requirement.

2. This is a University-wide requirement for all B.A. majors.

3. The Testing Administrator of the Office of Counseling and Testing will offer the Foreign Language Proficiency Examination periodically in each semester. Students must register in advance with that office to take the examination (RS203).

4. The foreign language proficiency requirement does not apply to students seeking a second baccalaureate degree.

5. A student who is required to furnish a passing TOEFL (Test of English as a Foreign Language) score for admission to the University and does so is considered to have satisfied the requirements.

State University System Foreign Language Proficiency Requirement

Students who have not satisfied the Foreign Language Admission Requirement at the time they are admitted to the University must satisfy this requirement prior to graduation. This requirement applies to all undergraduates and is separate from the University of Central Florida Foreign Language Proficiency requirement. For detailed information on the Admission Requirement, see the Admission chapter of this catalog.

THE GORDON RULE

The Gordon Rule (State Rule 6A-10.30) applies to students who first enrolled in any college or university after October 1982. The rule requires students to complete 24,000 words of composition in four courses (12 semester hours) and to complete two courses (6 semester
hours) of mathematics at the level of college algebra or higher. Each course must be completed with a grade of "C" or better. CLEP and other forms of credit by examination may not be used to satisfy the composition portion of the Gordon Rule Requirement.

UCF courses which are required by the General Education Program may also be used to satisfy the Gordon Rule. Gordon Rule requirements may be satisfied by the General Education Program as follows:

Gordon Rule Requirement:
1. 6 hours of math at the level of college algebra or higher
2. 12 hours of course work in which the student must complete 24,000 words of composition

Any 3000-level or above course in math, statistics, or computer science may also be used toward fulfillment of the math portion of the Gordon Rule Requirement.

GEP Courses Which Satisfy:
1. 6 hours of English Composition
2. 6-hour sequence of Western Humanities, U.S. History, or Western Civilization

All literature and composition courses taught by the Department of English, and each of the courses listed below fulfill 6,000 words of the composition portion of the Gordon Rule Requirement. Additional specific upper level courses may also be used to meet the Gordon Rule composition requirement. Consult the OASIS and Academic Exploration Program office for information.

ADV 4101 Adv Copy & Campaigns
JOU 3100 News Reporting
JOU 4302 Editorial/Column Writing
JOU 4310 Freelance Writing
JOU 4300 Feature Writing
JOU 4104 Public Affairs Reporting

Each of the courses listed below fulfill 3,000 words of the composition portion of the Gordon Rule Requirement.

AMH 3402 History of the South to 1865
AMH 3403 History of the South Since 1865
AMH 3441 History of the Frontier: Eastern America
AMH 3442 History of the Frontier: Western America
AMH 3445 Spanish Borderlands
AMH 3460 History of Urban America
AMH 3540 Military History
AMH 4201 Robber Baron Era
AMH 4231 United States History: 1914-1945
AMH 4270 United States History: 1945-Present
AMH 4311 American Culture I
AMH 4313 American Culture II
AMH 4510 Rise of the US to World Power, 1776-1914
AMH 4511 US as a Great Power: 1914-Present
ANT 3145 Archae of Complex Soc
ANT 3162 Archae of Mid & S.Am
ANT 3163 Mesoam Arch
ANT 3328 Maya Arch
ANT 3930 Seminar in Arch Meth
ARH 4350 Baroque Art
ARH 4430 19th Century Art
ARH 3456 Art After 1945
ARH 3530 Asian Art
ARH 4450 20th Century Art

AMH 3560 Women in American History
AMH 3570 Black American History
AMH 3800 Canadian History
AMH 4110 Colonial America, 1607-1763
AMH 4130 The Age of the American Revolution 1783-1789
AMH 4140 Jeffersonian America
AMH 4160 Jacksonian America
AMH 4170 Civil War and Reconstruction
EUH 4284 Facism & the Totalitarian Dictatorships
EUH 4456 France, 1914-Present
EUH 4461 Rise of Modern Germany
EUH 4465 Hitler's Third Reich
EUH 4500 English History to 1485
EUH 4501 English History to 1485-1815
EUH 4502 British History: 1815-Present
EUH 4530 British Empire & Common-wealth
EUH 4571 History of Russia to 1801
EUH 4574 History of Russia 1801-1917
EUH 4576 History of the Soviet Union: 1917-Present
EUH 4620 European Great Powers: 1815-1914
EUH 4621 War & International Politics in Europe 1914 to present
FIL 4201 Film Production II
HIS 4150 History and Historians
HUM 3203 Hebrew & Christian Heritage
COLLEGE LEVEL ACADEMIC SKILLS TEST - (CLAST)

The College Level Academic Skills Test (CLAST) is designed to ensure that students have achieved communication and computation skills commensurate with successful completion of the Lower Division. All students seeking an Associate of Arts or Baccalaureate degree from UCF are required by the State of Florida to satisfy the CLAST requirement. There are several methods by which students may meet this requirement but applicants for teacher certification may only satisfy the CLAST by making passing scores on each section of the test.

Transfer students with more than 55 credit hours who have not taken the CLAST or met the requirement may be admitted, but must take the CLAST exam during their first term at UCF.

Students with 70 or more hours of credit who have not taken the CLAST will be restricted to enrollment in 1000 and 2000 level classes until they have taken the CLAST.

Students who have not passed all four subtests of CLAST may enroll for an additional 36 semester hours of upper division credit after qualifying for admission to upper-division status. If the CLAST requirement has not been satisfied and the additional 36 hours of upper division credit have been earned, enrollment in future terms at UCF will be prohibited until the CLAST requirement has been satisfied. An appeal to continue enrollment must be approved by the University Admissions and Standard Committee.

There are additional guidelines which apply to students receiving financial aid. Contact the Office of Student Financial Assistance for further information.

CLAST is offered statewide once per term. Students must register in advance at the UCF Registrar’s Office, Administration Building, First Floor. Additionally, students may retake the English Language Skills, Reading and/or Computation subtests on computer at the Student Academic Resource Center. A fee will be charged for the computer-adapted CLAST.

Information regarding preparation for the CLAST exam or alternatives for meeting the CLAST requirement may be obtained from the Student Academic Resource Center, PC1-102, phone (407) 823-5130. Academic advising offices within each college and the unit of Academic Development and Retention can also be of assistance.

CORRESPONDENCE COURSES

The Department of Independent Study by Correspondence, Division of Continuing Education, University of Florida, 2209 N.W. 13th St., Suite D, Gainesville, FL 32609, administers all correspondence instruction for the State University System. Phone: (352) 392-1711.

SUMMER ATTENDANCE REQUIREMENT

A student entering the State University System with fewer than 60 semester hours of credit is required to enroll in a minimum of nine hours of credit in the summer at a state university.
may be counted toward this requirement. Petitions for exemption are sent to Dr. David Dees in Enrollment and Academic Services on the form supplied by Enrollment and Academic Services (AD 210).

ADMISSION TO THE UPPER DIVISION
To be classified as an upper-division student at the University of Central Florida, a student must complete the following:
1. A minimum of 60 semester hours of academic work.
2. The English and mathematics requirements of the Gordon Rule.
3. Passing scores on three of the four parts of the College Level Academic Skills Test (CLAST)
4. One year of college instruction in a single foreign language. (This requirement applies to those students admitted to the University without the required two units of foreign language in high school.)

GRADUATION APPLICATION DEADLINE
Students planning to graduate in the next semester should complete the Intent to Graduate form in their college during Early Registration for their last semester. Students who have not applied for graduation by the last day of classes in the semester preceding the graduation semester will not be listed in the graduation program. Graduating students are required to be enrolled at UCF during the term of graduation.

Successful completion of the degree requirements stated in the catalog under which the student wishes to graduate shall constitute a recommendation of the respective college faculty that the degree be awarded, assuming the student is in good standing in the University.

A student must complete all requirements for a baccalaureate or graduate degree no later than the date of the semester graduation ceremony. A student may not be enrolled as a transient student in another institution during the term in which the baccalaureate degree or the Associate of Arts degree is to be awarded.

TEACHER CERTIFICATION REQUIREMENTS
Since July 1, 1980, initial certification requirements (Temporary Certificate) in Florida have included three basic components with a fourth now added as prerequisite to (Regular Certificate) full certification. The components are:
1. General Preparation
Courses included in this category are normally classified as general education (i.e., General Education Program). A graduate with a Bachelor's degree from an accredited institution shall be considered to have met the General Preparation requirements.
2. Teaching Specialization
Courses included in this category are normally classified as the major area in a student's college program. Other subjects can be shown if the specific requirements in 6A-4.07 through 6A-4.35 Florida Requirements for Teacher Certification have been met.
3. Professional Preparation
Students can complete a program of Professional Preparation by one of two means at UCF. These means are:
A. The State-Approved Program of Teacher Education (i.e., a major in the College of Education) and satisfaction of state requirements for SAT or ACT scores.
B. The Basic Certification Program (i.e., a major in some other college) and admissibility to the professional phase of the program.
4. Comprehensive Examination
Competency must be demonstrated on a written examination in the area of Mathematics, Reading, Writing, and Professional Skills. Examinations will be administered at least three times per year throughout the State of Florida.
Beginning July 1, 1981, a Regular Florida Teacher's Certificate may be issued to persons meeting all requirements for the Temporary Certificate and satisfactorily
completing a year-long beginning teacher program approved by the State Board of Education.

Photo Credit: Earl Brown
ENROLLMENT AND ACADEMIC SERVICES

Vice-Provost: Thomas Huddleston, Jr., AD 210, Phone (407) 823-2226
Associate Dean: Paul R. McQuilkin, AD 210, Phone (407) 823-2691
Assistant Dean: David Dees, AD 210, Phone (407) 823-2691
Assistant Dean: Maribeth Ehasz-Sanz, AD 210, Phone (407) 823-2169

The primary purpose of Enrollment and Academic Services is the identification, enrollment, retention and graduation of students from the University of Central Florida. Among the services provided are: undergraduate admissions; advisement and academic exploration; college and community outreach; community college articulation; financial assistance; multicultural academic support; academic records; registration; retention; academic publications; commencement; information planning and research. These responsibilities are integral to the mission of the University, addressing the immediate needs of students and faculty, while also responding to the concerns of other constituencies such as business and industry, parents, alumni, and other educational institutions.

Enrollment and Academic Services provides support through the offices of Special Programs, LEAD Scholars, Articulation and Community College Relations, Undergraduate Admissions, Registrar, Student Financial Assistance, Academic Records and Regulations, and the unit of Academic Development and Retention which includes the Academic Exploration Program, Academic Services for Student-Athletes, Minority Student Services, and the Student Academic Resource Center.

SPECIAL PROGRAMS
Director: Cecelia H. Rivers, Phone (407) 823-5580, TR 547, Room 101

The Office of Special Programs supports the goals and aspirations of school-aged students. Prospective college students are provided with essential information, materials, and collegial experiences to increase their motivation and preparation for post secondary study. This University outreach operation demonstrates a strong commitment to expand the pool of students who are ready to meet the challenge of a college education.

A myriad of precollegiate programs are administered by the Office of Special Programs. College Reachout Programs (CROP) are supported by the Department of Education and provide campus and school-based programs to strengthen the success skills of students in grades 6-12. The UCF McKnight Center of Excellence is a community-based organization housed in the Callahan Neighborhood Center for direct access to under-represented populations at every grade level. A host of community partnerships enable the identification of high potential students, provide volunteer support, and make significant contributions to meet program goals and objectives. Throughout the year, workshops, seminars, and various other activities and events are sponsored to aid personal development and career achievement. Leadership training and promotion of civic responsibility are integrated into all outreach programs. During the summer, students are invited to the University campus for an early introduction to college life. Special Programs offers students unique approaches to college readiness and a head start on becoming productive citizens.

LEAD SCHOLARS PROGRAM
Director: Pamela Anthrop, AD 388E, Phone (407) 823-2223

The LEAD (Leadership Enrichment and Academic Development) Scholars Program is a comprehensive student development program for talented first year college students with experience and interest in leadership, scholarship, and service.

The LEAD Scholars Program (LSP) fosters further enrichment in these areas while enhancing the academic growth and individual development of future leaders during their first two years of higher education. This program focuses on integrating LEAD Scholars with faculty in the five colleges of Arts & Sciences, Business Administration, Education, Engineering, and
Health and Public Affairs. Although LEAD Scholars will identify with a particular college, the program is available to students deciding upon their major academic interest as well as those who have settled upon a major. LEAD Scholars will be required to take a seminar in foundations of leadership as a primary means of facilitating the focus for study, advisement, and educational activities as it relates to leadership, scholarship, and service within the college. This one credit hour will be required each Fall and Spring term during the two year program.

LEAD Scholars join a unique partnership with faculty and staff as a way to make immediate connection with academic life. Leadership development will be fostered in the University, in the community, through skill enhancement, and through cultural diversity. LEAD Scholars will have the opportunity to experience service to campus, the community, and through service learning exercises. Scholarship will be enhanced through involvement with the colleges, academic and administrative departments; and through academic exploration.

LEAD Scholars are provided special class scheduling privileges, citations and awards, official notation on student transcript, graduation recognition, and selected scholarship assistance, selected work assignments in academic and administrative departments, and on campus housing opportunities.

Through a competitive application process based on academic record, extracurricular and community activities, letters of recommendation, and expressed written interest in leadership, scholarship, and service, LEAD Scholars are selected for this two year program which serves as a bridge for participation in leadership opportunities as upper division students.

ARTICULATION AND COMMUNITY COLLEGE RELATIONS

Director: D. Travis Spaulding, AD 210, Phone (407) 823-2231

The Office of Articulation and Community College Relations has primary responsibility for interinstitutional relations with Florida's public community colleges. This office maintains and enhances working relations with these institutions by providing the following services and resources:

- accurate and current information about university programs and policies including entrance and exit requirements;
- articulation workshops and conferences involving instructional, advising, and administrative personnel from the university, community colleges, and other selected institutions;
- university liaison with the Florida community college system, i.e. the Council of Instructional Affairs, Council of Student Affairs, Council of Presidents, Articulation Coordinating Committee, and Florida Association of Community Colleges;
- written articulation agreements between the university and the community colleges and among colleges within the university;
- coordination and processing of transfer scholarships and awards;
- systematic monitoring of the University of Central Florida's compliance with the state-wide articulation agreement; and
- interpretation of statutes and rules for the university community and the state university system and interpretation of university rules for the community colleges.

The Director of this office serves as ombudsman for community college students experiencing problems, while establishing systems to prevent transfer problems from occurring. Of primary concern shall be the improvement of the academic readiness of students to pursue their major fields of study and complete their baccalaureate degrees in a timely manner.

UNDERGRADUATE ADMISSIONS

Director: Susan McKinnon, AD 161G Phone (407) 823-3000

The Undergraduate Admissions Office coordinates the admission and enrollment process of all undergraduate first-time-in college, transfer, non-degree, and non-Florida state university transient students to the Orlando, Daytona, and Brevard campuses. The office seeks to identify, attract, and enroll the desired number of talented, diverse, and academically qualified students who can contribute to and achieve academic growth from the multitude of programs offered through the University and community we serve. Through managed communication, a data management system and scholarships, the office is able to attract students who are motivated, challenged, and have the desire to achieve academic prominence.
Office functions include administering programs for prospective students, such as campus tours, open houses, area receptions, high school and community college visits. Students, parents, high school and community college counselors are consulted on a continual basis regarding all aspects of admissions and general information on the academic, social, and living components of the University. The office is committed to providing accurate and timely information to all constituents.

REGISTRAR'S OFFICE

University Registrar: John F. Bush, AD 161, Phone (407) 823-5454.

The Registrar's Office is responsible for: maintaining student records for the University; coordinating all aspects of registration, room scheduling, and graduation checks; processing student transcript requests; providing descriptive data on registration, and providing a variety of services to students related to student records and registration. The Office's organizational structure is centered around the concept of updating records in a timely manner and maintaining accurate student files. The Registrar's Office is service oriented and strives to deliver efficient and timely services and data to all constituents.

ACADEMIC DEVELOPMENT AND RETENTION

Assistant Dean: Maribeth Ehasz-Sanz, AD 210, Phone (407) 823-2169

The mission of the Academic Development and Retention Unit is to increase retention by developing and implementing academic support services and programs that will promote and enhance student persistence and success throughout the university. Through a program of assessment, collaboration, and coordination, the unit focuses attention on the academic support needs, expectations, and concerns of all UCF students, giving particular attention to special targeted groups.

Academic Exploration Program

Director: Russell Tiberii, PH 202, (407) 823-5322

Academic Exploration Program is a student centered source of academic support and information for students who choose not to make a hasty choice of major, but prefer to explore the many options available to them under the guidance of academic advisors, and with the assistance of other professional resources throughout UCF. The central mission of the Academic Exploration Program is to provide a focal point of academic support and assistance for students who are undecided about choosing a major or have been displaced from a restricted or limited access major.

Opportunities are provided for students to participate in a series of workshops and seminars which provide them with an opportunity to explore interests, assess abilities, and provide an organized approach to making thoughtful, well informed and meaningful decisions about their education and careers. Students in AEP progress through a variety of activities and tasks through which they learn to use the skills of academic and occupational data gathering, and evaluate this information in the context of their own personal strengths, limitations, and interests. The objective of AEP is to assist students in defining their goals and selecting an academic major.

In addition to the workshops, individualized academic advising is provided to help students find the correct balance of support, challenge, structure and freedom to assist in the development of their academic programs. Central to all academic advising and support programs is a developmental approach to assisting students. Support is provided for self-assessment, exploration of academic disciplines, and decision making to achieve the fulfillment of academic and life goals. Course selection assistance is provided during each registration period, and long range academic planning assistance is provided throughout the academic year.

Academic Services for Student-Athletes

Director: Sandra Reeves, Building 521, (407) 823-5895

The University makes a strong academic commitment to its student-athletes. The office of Academic Services for Student-Athletes collaborates with the Athletic Department to ensure that student-athletes balance the academic demands of the full-time student with the competition of Division I intercollegiate athletics. Student-athletes need guidance in seeking
appropriate goals, exploring possible majors, scheduling required course work to accommodate practice and training sessions, and establishing a strong academic foundation. The program is a retention tool used to ease the college transition through intensive academic tracking and personal support.

Through cooperation with college departments, academic counselors advise student-athletes according to requirements for the program of study. Academic support services include organized study sessions, tutorial services, time management, and study skills instruction. The office is responsible for notifying and working with faculty to arrange for make-up work for student-athletes when they travel for competition. A career exploration component assists the student-athlete with decisions related to choosing a major, a career, graduate school, or other career interests.

Through collaboration with the Athletic Department and the NCAA faculty representative, counselors ensure compliance with NCAA requirements from the admissions process through graduation. The office serves as a resource for student-athletes. The counselors refer student-athletes regularly to faculty members or other support services on campus for assistance.

Multicultural Student Services

Director: A.J. Range, AD 145, (407) 823-2716

The office of Multicultural Student Services (MSS) provides comprehensive academic support, cultural enrichment, consultation, and referral services that promote the recruitment, admission, retention, and graduation of African-American, Hispanic-American, Asian-American, and Native-American students. MSS offers personalized advising and support, monitors academic progress, sponsors a six week summer program, Seizing Opportunities for Academic Retention (SOAR), formerly EOP, and designs and coordinates cultural and social activities to assist ethnic minority students in realizing their academic, career, and personal goals. MSS serves as the focal point of operations in addressing the specific needs, issues and concerns that confront ethnic minority students at UCF.

Student Academic Resource Center (SARC)

Director: TBA, PC1-102, (407) 823-5130

The Student Academic Resource Center (SARC) provides high-quality academic support programs, including tutors, retention programs, mentoring programs, and various other programs and services to UCF students to support the goal of providing a quality education at the University of Central Florida. SARC serves as a means for retention of students and is an important element in enabling UCF students to achieve their academic goals.

SARC provides students with free individualized and small-group tutoring in biology, chemistry, computer science, economics, English, foreign language, math, physics, reading, statistics, and many other disciplines.

Every semester, SARC offers a series of CLAST Review Workshops and classes for each of the four CLAST subtests. The staff can also prescribe self-paced programs specifically designed for CLAST preparation. Additionally, students may retake the English Language Skills, Reading, and/or Math subtests on computer at SARC for a fee.

The Academic Mentoring Program provides academic assistance to students through study skills workshops, academic and career advisement, tutoring, and weekly meetings with individual mentors. This combination of personal contact and academic support provides students who participate with the knowledge and skills necessary for success in college.

Each semester SARC provides a series of study skills workshops on time management and note taking, test taking, memory, creative and critical thinking, and test anxiety for all students wishing to enhance their educational experience. These materials are also available on videotape for students who cannot attend the workshops.

Classes are offered for those preparing for the GRE, SAT, and ACT. Computer assistance is also available for these standardized tests as well as the GMAT, the LSAT and the MCAT.

First Year Advising and Information Services

Coordinator: Robert E Snow, ASPECT Trailer #619, (407) 823-3789

UCF recognizes that starting in a new learning environment can present many life transitions for incoming students. First Year Advising and Information Services has been established to proactively prepare and support first year students, specifically first time in college students.
The overriding mission of the office is to assist first year students by providing academic advising services and other programs that will lead to students' overall satisfaction, success, and persistence at UCF.

To fulfill this mission, the office focuses its efforts on providing a caring environment, serving as a centralized source of academic information, conducting personalized advising and academic support, establishing early and regular communication, and tracking the academic progress and success of our target student population. An additional office priority is to provide activities and interaction with first year students that promote early affiliation and involvement with UCF.

First Year Advising and Information Services works collaboratively with the college advisors in providing accurate academic program information and in creating appropriate academic plans for our students. The office provides advising, general information, and other assistance beginning with the new student orientation process and continuing throughout the initial stages of students' UCF collegiate experience.
ACADEMIC PROGRAMS

UNDERGRADUATE DEGREES

Associate of Arts Degree

University of Central Florida students who satisfactorily complete 60 semester hours of acceptable college work may apply for an Associate of Arts degree. University requirements include achievement of an overall and UCF grade point average of 2.0 or above, fulfillment of the General Education Program requirements, and completion of the last 20 credit hours in residence at UCF. In addition, any student who wishes to receive an A.A. degree must have satisfied the Gordon Rule requirement and passed the College Level Academic Skills Test.

The Associate of Arts degree is awarded only upon application. The application form may be obtained in Enrollment and Academic Services, AD 210 and should be completed by the end of the first week in the semester in which the Associate of Arts degree is to be awarded. A student may not be enrolled as a transient student in another institution during the term in which the Associate of Arts degree is to be awarded. An Associate of Arts degree will not be awarded in the same term that the baccalaureate degree is to be awarded or in any term following the completion of the baccalaureate degree.

Baccalaureate Degrees

The University offers the degrees of Bachelor of Arts, Bachelor of Engineering Technology, Bachelor of Fine Arts, Bachelor of Science, Bachelor of Science in Business Administration, Bachelor of Science in Engineering, Bachelor of Science in Nursing, and Bachelor of Science in Social Sciences. These degrees are available in the following Colleges with majors or areas of specialization as indicated:

College of Arts and Sciences
Bachelor of Arts (B.A.)

Majors: Anthropology, Art, Economics, English, Foreign Languages Combination, French, General Studies, History, Humanities, Interpersonal Communication, Journalism, Liberal Arts, Liberal Studies, Motion Picture Technology, Music, Music Education, Organizational Communication, Philosophy, Political Science, Psychology, Radio-Television, Sociology, Spanish, Theatre

Bachelor of Fine Arts (B.F.A.)

Majors: Art, Theatre

Bachelor of Science (B.S.)

Majors: Biology, Chemistry, Computer Science, Forensic Science, Liberal Studies, Mathematics, Physics, Psychology, Social Sciences (interdisciplinary), Statistics

College of Business Administration
Bachelor of Science in Business Administration (B.S.B.A.)

Majors: Accountancy, Economics, Finance, General Business Administration, Hospitality Management, Management, Marketing

College of Education
Bachelor of Science (B.S.)

Major: Elementary Education, Exceptional Child
Major: K-12 — Art Education, Physical Education
College of Engineering
Bachelor of Science (B.S.)

**Majors:** Aerospace Engineering, Civil Engineering, Computer Engineering, Electrical Engineering, Environmental Engineering, Industrial Engineering, Mechanical Engineering; plus programs leading to B.S. degree in Electrical Engineering Technology or Engineering Technology

College of Health and Public Affairs
Bachelor of Arts (B.A.)

**Majors:** Communicative Disorders, Criminal Justice, Legal Studies, Public Administration

Bachelor of Science (B.S.)

**Majors:** Cardiopulmonary Sciences, Communicative Disorders, Health Information Management, Health Services Administration, Medical Laboratory Sciences, Molecular Biology and Microbiology, Radiologic Sciences, Physical Therapy

Bachelor of Science in Nursing (BSN)

**Major:** Nursing

Bachelor of Social Work (B.S.W.)

**Major:** Social Work

Double Majors

Any UCF student working toward a single bachelor's degree (a B.A. degree or a B.S. degree) who satisfies the requirements for two majors will be awarded one diploma, but both majors will be indicated on the student's permanent record. Since the requirements for Bachelor of Arts and Bachelor of Science degrees are different, a student completing a major with a B.A. and a major with a B.S. must satisfy the requirements for both the B.A. and the B.S. degrees. Although both majors will be indicated on the student's permanent record, only one diploma (a B.A. or a B.S., at the student's option) will be awarded. A double major does not require a minimum number of hours beyond those necessary for completing degree requirements, while a second degree has specific minimum requirements. (See Second Baccalaureate Degree.)

Second Baccalaureate Degree

Any UCF student desiring to obtain two baccalaureate degrees must meet the requirements for both degrees and earn a minimum of 150 hours. A separate diploma will be awarded for each degree.

Transfer graduates from accredited four-year U.S. institutions who apply for admission to work toward a second baccalaureate degree at the University of Central Florida must meet the regular admission requirements of the major department and the UCF residency requirement for that degree (see residency requirement discussion in the chapter, Undergraduate Degree Requirements). Students holding the baccalaureate degree from accredited U.S. institutions are considered to have completed all General Education Program Requirements. Students who hold degrees from foreign institutions may be required by the Office of Enrollment and Academic Services to fulfill all or part of the UCF General Education Program requirements.

The University requirements specified in the preceding paragraphs are minimum requirements. Departments and colleges may require more than 150 hours for a second degree or more than 30 hours to be taken in residence at UCF. Students should confirm department and college requirements with their academic advisors.

Minors

Minors in a limited number of programs have been authorized for certification with baccalaureate degrees. Minors must be indicated on the Intent to Graduate card and must be certified at the same time as the student's baccalaureate degree. Unless a second baccalaureate degree is earned, certification will not be made at a later time even if additional courses have been completed.
If you plan to graduate with a minor, have that minor added to your audit during the Early Registration period. Contact the undergraduate records office of the college offering the minor for more information. All graduation requirements must be from a single UCF catalog for which a student is eligible.

### ACADEMIC MINORS

**COLLEGE OR DEPARTMENT**

**AWARDING MINOR**

| College of Arts & Sciences | African American Studies, American Studies, Canadian and Commonwealth Area Studies, Judaic Studies, Judaic Studies Certificate, Latin American and Iberian Area Studies, Psychology, Russian Area Studies, Women's Studies |
| College of Business Administration | Business Administration (one minor for majors and one for non-majors), Economics (for non-Business Administration majors), International Business (for Business majors only), Hospitality Management, Management Information Systems |
| College of Engineering | Technology and Society, Communicative Disorders, Criminal Justice, Health Sciences, Legal Studies, Public Administration |
| College of Health and Public Affairs | Space Studies, Art History, P.A.V.E., Studio Arts, Technical Writing and Editing, Creative Writing, Literature, Linguistics, Writing |
| Multidisciplinary | French, German, Italian, Russian, Spanish |
| Department of Art | History |
| Department of English | Asian Studies, Humanities, Multicultural Humanities, Philosophy, Religious Studies |
| Department of Foreign Languages and Literatures | Music |
| Department of History | Theatre |
| Department of Philosophy | Biology |
| Department of Music | Chemistry |
| Department of Theatre | Computer Science, Applied Computer Science, Computer Science for Business Majors |
| Department of Biology | Mathematics |
| Department of Chemistry | Physics |
| Department of Computer Science | Statistics |
| Department of Mathematics | Aerospace Studies (Air Force ROTC) |
| Department of Physics | Military Science (Army ROTC) |
| Department of Statistics | Interpersonal Communication, Organizational Communication, Mass Communication, Journalism |
| Department of Aerospace Studies | AD/PR Track, Journalism News/Edit Track, Radio-TV |
| Department of Military Science | Political Science, Political Science/Pre-Law |
| School of Communication | Clinical, Human Factors, Industrial/Organizational |
| Department of Political Science | Anthropology, Multicultural Anthropology, Sociology |
| Department of Psychology | |
| Department of Sociology and Anthropology | |

*Contact the College/Department for the requirements for each minor.*
GRADUATE PROGRAMS

See listing at the beginning of each college section. For further information on a particular program, contact the departmental office in the respective college or see the Graduate Catalog.

PRE-HEALTH PROFESSIONS ADVISEMENT OFFICE

Preprofessional Coordinator:
Dr. O.M. Berringer, HPB 350, Phone (407) 823-2670

The Pre-Health Professions Advisement Office was established to function as a service to all students preparing for and seeking admission to professional schools of chiropractic, dentistry, medicine, osteopathic medicine, optometry, pharmacy, podiatry, and veterinary medicine. The services afforded students through this office are numerous and range from basic counseling in pre-health professions matters to providing a Composite Evaluation of the student (upon his/her request) to each professional school to which the student applies. However, in order to be considered for a Composite Evaluation, the student must have a minimum overall GPA of 2.8 and at least 30 semester hours of typical undergraduate pre-health professions courses taken at UCF by the end of the Spring semester preceding his/her application to the professional schools, (usually between the junior and senior year). Additionally, all pre-health professions students are strongly encouraged to affiliate with and participate in the activities of the Preprofessional Medical Society.

Pre-Health Professional Planning

Pre-health professions students should bear in mind that admission to a health professional school is competitive. For this reason, pre-health professions students should pay close attention to the characteristics of successful applicants. For example, while some dental and medical schools require only two and three years of college preparation, approximately 91 percent of all pre-dental and 95 percent of all premedical students accepted throughout the nation each year have completed four years of college. Consequently, since pathways such as “premed” do not result in a degree, each pre-health professions student is urged to carefully select a degree-granting major. This will not only allow one to become more competitive for admission, but also to prepare for an alternate career in the event admission to a professional school is denied. Any degree-granting program offered by the University may be selected as a major; however, those programs within the sciences will generally lend themselves most adequately to pre-health professions preparation due to the nature and content of their curricula. While satisfying degree requirements, students will find in their curricula many courses required for admission to most professional schools. Additionally, prudent use of elective hours in the curricula will permit other appropriate pre-health professions courses to be obtained. Obviously, pre-health professions students are expected to be high achievers, and to obtain good grades with heavy credit hour loads and rigorous course combinations. Most professional schools expect applicants to present at least a B average and to carry a minimum of 16 credit hours each term, with the exception of summer terms. Sustained high-level performance while carrying 15 or more credit hours is one of the strongest predictors of success in professional school.

Preprofessional advisement should not be confused with academic advisement. Class scheduling and progress toward a given degree should be carefully monitored by the students faculty (academic) advisor.

Curricula Guidelines

All pre-health professions students are strongly encouraged to enroll in SLS 2311, OVERVIEW OF SELECT MEDICAL CAREERS, the first fall semester they are enrolled. This course provides a broad exposure to guest speakers representing the various four-year health professions. In addition, the entire preprofessional process (academic preparation, applications, prescreening, interviews, admission exams, admissions, scholarships, etc.) is explained in depth. Following this focus on awareness, students are prepared to make informed decisions relative to planning their pre-health professional studies.
Concerning required courses, all pre-health professions students are required to complete the General Education Program (GEP) plus the following courses (many of which are applicable to the GEP):

- General Biological Sciences, BSC 2010C, BSC 2011C
- Genetics, PCB 3063 and 3063L
- General Chemistry, CHM 2045, 2046, 2046L
- Organic Chemistry, CHM 3210, 3211, 3211L
- Microbiology, MCB 3013C
- English Composition, ENC 1101, 1102
- Calculus, MAC 3233 (although MAC 3233 is acceptable, the MAC 3311, 3312 sequence is preferable)
- Physics, PHY 3053C, 3054C (although the preceding courses are acceptable, the sequence PHY 3048, 3048L, 3049L is preferable)
- Statistics, STA 3023

Additional required/strongly recommended courses not common to all preprofessional students are the following:

**Premedical and pre-dental** students should take:
- Molecular Cell Biology, PCB 3023
- Comparative Anatomy, ZOO 3713C or
- Human Anatomy, ZOO 3733C
- Embryology, ZOO 4603C
- Histology, ZOO 4753C
- Microbiology, MCB 3203C and PCB 3233
- Analytical Chemistry, CHM 3121C plus either (or both) Biochemistry, BCH 4053, 4054, or Physical Chemistry, CHM 3410.

**Preoptometry** students must take:
- General Botany, BOT 2010C
- Microbiology, MCB 3203C and it is strongly recommended they take
- Human Anatomy and/or Human Physiology, ZOO 3733C, PCB 3703C

**Prepharmacy** students must take:
- General Botany, BOT 2010C
- Microbiology, MCB 3203C and it is strongly recommended they take
- Histology, ZOO 4753C and Biochemistry, BCH 4053

**Preveterinary** students must take:
- General Botany, BOT 2010C
- Analytical Chemistry, CHM 3121C
- Microbiology, MCB 3203C
- *Animal Science, ASG 3003, and ASG 3402*

*These courses to be taken as a transient student at the University of Florida, preferably during the summer following the sophomore year. It is strongly recommended they also take:
- Comparative Anatomy ZOO 3713C
- Histology ZOO 4753C
- Embryology ZOO 4603C and
- Biochemistry BCH 4053

For Maximal Preparation: Additionally, the UCF courses Biochemistry (BCH 4053), Histology (ZOO 4753C), Embryology (ZOO 4603C), Genetics (PCB 3063), Immunology (PCB 3223), Neuroanatomy (ZOO 5745C), and Human Anatomy (ZOO 3733C) are strongly recommended for maximum preparation for the Basic Medical Sciences of most first year professional school curricula.

**Meaningful Electives:**
All pre-health professions students are strongly encouraged to make prudent selections of elective courses complementary to their pre-health professions preparation. Listed below are a number of appropriate courses from which elective selections can be made.

Accountancy: (ACG 2001 and 2011) or ACG 3023.
- Biochemistry: BCH 4053.
Choosing A Major and Academic Advisement

The advantage of declaring a major early is to be linked with a UCF faculty member who will serve as the student's academic advisor within his or her chosen degree tract. Problems are less likely when students remain in contact with conscientious advisors.

Students are encouraged to investigate several degree pathways and to talk with a number of students who have selected those majors. Thorough investigation at the start of the student's academic career will help him or her in making a reasonable choice. The following information offers a general guideline in selecting an academic major.

Choice of Major: The aspiring pre-health professional student is expected to declare a major within one of the degree-granting departments of the University. Terms such as premed or prevet are simply descriptive labels, as UCF does not award pre-health professional degrees.

Students may elect any major described in the UCF Catalog. This includes such varied pursuits as Psychology, Engineering, or Liberal Studies.

Traditional vs. Non-Traditional Majors: Traditional majors for pre-health professionals are characterized by degree requirements which overlap most professional school admission requirements. Chemistry, Biology, Molecular Biology and Microbiology are the majors most often chosen at UCF, but others such as Psychology, Physics, and Mathematics are also appropriate choices.

Non-Traditional Majors: Such majors as English, Philosophy, Music, Engineering, and so forth, have the disadvantage of not overlapping with admission requirements. If a student elects a non-traditional pathway and does not complete more than the minimum science requirements, s/he will be expected to have accomplished an outstanding performance record in the science classes taken.

Ultimately, the choice belongs to the student. Professional schools are less concerned with what undergraduate major one chooses than with how well s/he performed and his/her choice of enrichment electives. Factors to consider are personal interests, finance for college, and career alternatives. The curriculum for the first two years is very similar for all pre-health professions students.

DATES OF IMPORTANCE

All pre-health professions students should be aware of registration deadlines and test dates for their specific admissions exam (DAT, MCAT, OAT, GRE, etc.). In addition, most four-year health professions schools subscribe to professional application services (MMCAS, ADDSAS, ACOMAS, etc.). The applicant must be aware of which schools are members of the service and thus require completion of a thorough application packet provided by the various Application Services. Some professional schools do NOT subscribe and therefore, the student applicant must deal directly with the admissions office of such schools.

The preprofessional screening process is initiated in April. Application packets are available at the Pre-Health Professions Advisement Office during the month of April. Dental applicants must return completed packets by the first Friday in May. All other applicants (Chiropractic, Medical, Optometry, Podiatry, Pharmacy, and Veterinary) must return completed packets by the third Friday in May.

Student applicants are scheduled for their Screening Committee interviews in the order of their return of completed application packets. A master schedule of all interviews for Fall term
is posted on the Pre-Health Professions Advisement Office bulletin board and copies are available at the Pre-Health Professions Advisement Office, HPB 350.

ADMISSIONS EXAMINATIONS

Various standardized examinations are required of applicants as a part of the admissions process to the professional schools (dentistry-DAT, medicine-MCAT, optometry-OCAT, pharmacy-PCAT, podiatry-MCAT, veterinary medicine-GRE or VAT). These examinations are generally offered twice each year, in the Spring and Fall. Pre-health professions students are advised to take the appropriate examination in the Spring preceding application to the professional school rather than waiting for the Fall examination. There are numerous support systems and review programs available to assist applicants with their preparation. All applicants are encouraged to maximize their preparation before registering to take any of these exams the first time. Taking an admissions exam on a trial basis is not recommended.

RELATED REFERENCES

Publications of special interest and usefulness to pre-health professional students include the following:

1. Admission Requirements of U.S. and Canadian Dental Schools, published by the American Associate of Dental Schools, 1625 Massachusetts Avenue, N.W., Washington, D.C. 20036;
2. Medical School Admission Requirements, United States and Canada, published by the Association of American Medical Colleges, One Dupont Circle, N.W., Washington, D.C. 20036;
3. The Education of Osteopathic Physicians, published by the American Association of Colleges of Osteopathic Medicine, 4720 Montgomery Lane, Suite 609, Washington, D.C. 20114;
4. Information for Applicants to Schools and Colleges of Optometry published by the Association of Schools and Colleges of Optometry, 213 East Ohio Street, Chicago, Illinois 60611;
5. Pharmacy School Admission Requirements, published by the American Association of Colleges of Pharmacy, 1730 "M" Street, N.W., Washington, D.C. 20036;
7. Veterinary Medicine, A Career Of Choices: A Handbook for Advisors, prepared by the Office of Student Affairs and Admissions, New York State College of Veterinary Medicine, Cornell University, Ithaca, New York 14853.

Preprofessional students are encouraged to obtain a copy of the admissions publication appropriate to their preprofessional area. Several of these publications are available in the University bookstore.

Other Health Professions

For Nursing and other Allied Health Professions, see College of Health and Public Affairs.

COOPERATIVE EDUCATION

Director: Sheri Dressler, PH 208, Phone (407) 823-2667

Many university students actively plan their careers through participation in Cooperative Education. Co-op is an academic program combining on-campus classroom study with off-campus major-related work experience for which the student receives a salary. It offers a blend of theory and practice, integrating formal university preparation with practical work experience. Through this program, students develop professional work competencies, test career goals, improve academic performance, generate income, and increase prospects for full-time employment upon graduation. Students may also earn credit for learning objectives accomplished on a Co-op assignment when this credit counts toward a student's degree requirements.

Students choose between two scheduling options, the alternating plan in which they alternate terms of full-time work with full-time school and the parallel plan in which they attend classes
full-time and work part-time concurrently. As an additional option, Co-op administers the Florida Work Experience Program (FWEP) through which employers are reimbursed 70% of the student's salary for providing career-related work opportunities.

Eligibility requirements for Co-op include 1) full-time enrollment in an undergraduate or graduate degree program at UCF, 2) completion of a minimum of 20 college semester hours, 3) a minimum of 1 academic semester remaining before graduation, and 4) maintenance of a minimum 2.5/4.0 UCF grade point average.

Co-op is available to students on all campuses in all five colleges.

UNIVERSITY HONORS PROGRAM
Director: TBA, PH 203, Phone (407) 823-2076

The University Honors Program at the University of Central Florida is designed to attract and challenge students who have demonstrated an ability to achieve academic excellence. The Honors Program also seeks students with particularly exceptional talents. It is committed to diversity in both the composition of its student body and the programs which it supports.

UCF's University Honors Program combines the atmosphere of a small college with the intellectual stimulation of a major research university. Honors students receive an education that prepares them to enter the best graduate and professional schools, as well as distinguished careers in business and public service.

Honors classes are small, and course work crosses traditional discipline boundaries to encourage critical thinking among honors students. Beyond the classroom, special guest lecturers and presentations, field trips, and University-related service activities expand the horizons of honors students.

Students in the University Honors Program are actively involved in social activities and course programming. Honors students have access to an honors lounge and to housing on campus. They also have early registration privileges.

Students may pursue honors courses through two distinct programs, University Honors and Honors in the Major.

University Honors. Admission into the University Honors Program is granted by the Honors Director. Students who seek admission into the program must apply directly to the Honors Director. It is the student's responsibility to obtain the appropriate Honors Program admissions information from the Director and to follow the procedures necessary to enter the program. Prospective Honors students and their parents are strongly encouraged to visit with the Honors Director as part of the admissions process. Due to the highly selective nature of the Honors program and the limited enrollment available, there are two categories of admission: Early Decision and Alternate Decision.

Early Decision. An incoming Honors freshman will be eligible for Early Decision if he/she has achieved one or more of the following distinctions: National Merit Scholarship Finalist or National Achievement Scholar Finalist or Semi-Finalist, Valedictorian or Salutatorian of a regionally accredited high school. In addition, students who meet the following academic criteria will also be eligible for Early Decision.

<table>
<thead>
<tr>
<th>HIGH SCHOOL GRADE POINT AVERAGE (WTD.)</th>
<th>COMBINED SAT SCORE</th>
<th>COMBINED ACT SCORE</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.9 +</td>
<td>1150</td>
<td>25</td>
</tr>
<tr>
<td>3.7 - 3.89</td>
<td>1250</td>
<td>28</td>
</tr>
<tr>
<td>3.5 - 3.69</td>
<td>1300</td>
<td>30</td>
</tr>
</tbody>
</table>

Students who meet any of the above criteria but apply to enter the program after the first 130 seats in the entering freshman Honors class are filled, or students who do not meet the criteria but who have shown academic potential and can demonstrate extraordinary circumstances, will be placed in the Alternate Decision Category.

Alternate Decision. Students with (1) a 3.25 or better GPA and a total score of 1400 or better on the SAT or 30 or better on the ACT, or (2) a 3.0 or better GPA and a total score of 1500 or better on the SAT or 33 or better on the ACT, or (3) the credentials which meet the Early Decision criteria, but who applied for entry into the program after the first 130 places were filled, may be admitted into the program under the Alternate Decision procedure. An
Alternate Decision applicant must file a letter of application for admission with the Honors Director and must also submit a 500 word essay stating his / her contribution to the program. Students who seek to enter the program under the Alternate Decision procedure may be required to visit with the Honors Director for a personal interview. At least thirty students in each entering freshman Honors class will likely be chosen from the Alternate Decision category.

Acceptance. A student who plans to enter the University Honors Programs and who is notified of acceptance into the program must file with the Honors Director a written statement of intent to enter the program and a $60.00 payment to secure membership in the Honors Club.

1 The student must complete this within thirty (30) days of acceptance into the program, or a place may not be available. Once the student has completed the procedures he / she will be provided with timely notice of Honors registration and orientation.

A student who is not admitted to the program as an entering freshman may apply for admission after completing at least fifteen (15) semester hours at the University of Central Florida with at least a 3.5 GPA. Mature students who are returning to do college work after having been out of college for a period of several years, or who have never been previously enrolled in college, are especially encouraged to apply for admission to the program after one or more semesters of at least 3.5 GPA work at the University, or under the Alternate Decision category in their first semester at UCF. Transfer students who seek admission will have their requests considered if they meet the high GPA and SAT/ACT criteria listed above and have at least a 3.5 GPA in their transfer work from a regionally accredited college or university.

Students must maintain a 3.2 overall GPA and 3.0 GPA in Honors Courses in order to remain in the University Honors Program. In addition to meeting the GPA requirements, to graduate with University Honors a student must also meet the following requirements: (1) complete 12 hours of course work in Honors Sections of the General Education Program; (2) complete, with a "satisfactory" grade, "Honors Symposium I" and "Honors Symposium II"; (3) complete one "Honors Lecture" course; and (4) complete two upper division "Honors Seminars" at least one of which must be outside the major field of study.

Students who complete a semester abroad or receive six or more hours of upper-division credit for study abroad as part of the University International Studies Program, will receive credit for completion of one upper division "Honors Seminar."

By the end of the second week of the term in which a student plans to graduate with honors, the student must file a completed "Intent to Graduate with Honors" form with the University Honors Director.

A student who completes all of the requirements for University Honors will have the designation of "Graduation with University Honors" entered on the Diploma and the University transcript.

Honors in the Major. Application for admission to the Honors in the Major program will be made to the department or college in which Honors are sought. Requirements for admission to Honors in the Major are: the completion of sixty hours of college credits; a cumulative 3.2 or higher grade point average, including at least twelve graded upper division hours at the University of Central Florida; permission of the department in which such Honors are sought; and permission of the Director of the University Honors Program. Upon application and approval of the major department or college, and with notification to the University Honors Committee, GPA requirements may be waived in cases where prior work at the college level was taken at least three years previous to the current period of continuous enrollment at the college level. Participation in the University Honors Program is not a requirement for participation in Honors in the Major.

Honors in the Major is awarded upon completion of an advanced Honors Project or Thesis, and the completion of at least one upper division Honors Seminar or an Honors Directed Readings course in the department in which Honors is taken. Each department or college reserves the right to set additional requirements for Honors in the Major to be achieved. Upon petition to the Honors Committee and with the consent of the major department, a student may be awarded credit for an Honors Seminar in the major if six hours of upper-division credit
accepted by the major department or college is taken abroad as part of the University International Studies Program or other overseas program directly connected with the University. The Honors Project or thesis is to be completed under the direction of a committee of three faculty members, one of whom is the major adviser. Up to six hours of 4000-level thesis credit may be awarded for student work on the Honors Project. This program is designed to encourage original and independent work on the part of the student. A copy of the thesis, creative work, or project that is the expected outcome of this course will be placed in the library. With the approval of the major department or college and notification to the University Honors Committee, an Honors student may be permitted to waive any and all of the usual requirements for completion of the major and pursue a course of study designed to fit his/her individual needs.

A student who completes all of the requirements for Honors in the Major will have the designation of “Honors in the Major” noted on the diploma and the University transcript.

Summary Table of Minimum Requirements for University Honors and Honors in the Major

<table>
<thead>
<tr>
<th>GEP*</th>
<th>Seminars*</th>
<th>Symposium*</th>
<th>Lecture*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Univ. Honors</td>
<td>12 Hrs</td>
<td>6 Hrs</td>
<td>2 Hrs</td>
</tr>
<tr>
<td>Thesis*</td>
<td>Dir. Rdgs.*</td>
<td>Hon. Major Sem.*</td>
<td></td>
</tr>
<tr>
<td>Hon. in Major</td>
<td>Up to 6 Hrs</td>
<td>AND</td>
<td>3 Hrs</td>
</tr>
</tbody>
</table>

*Denotes Honors Hours

1 The $60.00 payment will normally be by check or money order made out to: UCF Foundation-Honors Endowment. If for any reason any applicant cannot make this payment, he/she should discuss this with the Honors Director. No student will be denied entry into the program because of inability to pay the Honors Club membership fee.

2 When a student has an exceptionally high number of dual enrollment, Advanced Placement, CLEP or other work which is substituted for GEP course hours, he or she may petition the University Honors Committee to substitute, on a credit for credit basis, Honors Lecture course work or Honors Seminar course work for Honors GEP course work.

3 “Honors Symposium I” and “Honors Symposium II” designate one credit hour courses which will be offered, respectively, in the Fall and Spring semester of each year. This course will include guest lectures, video and film presentations, and live performances by guest artists. During each semester a field trip will be included as part of the Honors Symposium. Attendance at this series will be mandatory for all students seeking University Honors. Only one unexcused absence is permitted. The course is graded on a “satisfactory”/“unsatisfactory” basis.

4 Each Fall and Spring term a three credit “Honors Lecture” course will be offered. The Lecturer will offer an integrative and original course that will be open only to Honors students. The purpose of this course is to explore cross-disciplinary domains and broaden the student's perspective beyond the usual notion of a “major” field of study. Students may take more than one Honors Lecture course, but at least one such course must be taken as part of the requirements for graduation with University Honors.

5 The three credit hour “Honors Seminar” is offered within the department major areas or programs, but is broad-based in the topics which are pursued. These seminars are designed especially for Honors students and are intended for non-major participation. With the consent of the instructor, majors may also be invited into an Honors Seminar.

6 Honors in the Major also designates a program in which a particular college may undertake to award Honors for upper-division work within the college. In the case of a college-wide Honors in the Major program, the student should consult the Office of the Dean of the College for information concerning procedures and requirements related to this program. Honors in the Major work is available only at the option of each department or college.
It is the responsibility of the Honors student to obtain a faculty adviser who will undertake the responsibility of directing the Honors Reading and Study Course. The student is responsible for notifying the Honor Director, in advance, when he/she intends to pursue the Honors Directed Readings Course. Prior to entry in the readings course, the student must file with the department or college and the University Honors Committee a readings list and study proposal signed by the faculty member under whose direction the course will be given. Credit towards Honors in the Major will be awarded by a department or college for a readings course if a grade of "A" or "B" is received by the student.
COLLEGE OF ARTS AND SCIENCES

UNDERGRADUATE PROGRAMS

Anthropology (BA)
Art (BA, BFA)
Biology (BS)
Chemistry (BS)
Computer Science (BS)
Economics (BA)
English (BA)
Foreign Language Combination (BA)
Forensic Science (BS)
French (BA)
History (BA)
Humanities (BA)
Interpersonal Communications (BA)
Journalism (BA)
Liberal Arts (BA)
Liberal Studies (BA, BS)

Mathematics (BS)
Motion Picture Technology (BA)
Music (BA, BM)
Music Education (BME)
Organizational Communication (BA)
Philosophy (BA)
Physics (BS)
Political Science (BA)
Psychology (BA, BS)
Radio-Television (BA)
Social Sciences (BS)
Sociology (BA)
Spanish (BA)
Statistics (BS)
Theatre (BA, BFA)

PREPROFESSIONAL PROGRAMS

Predental
Prelaw
Premedical
Preoptometry

OTHER PROGRAMS

African-American Studies
American Studies
Asian Studies
Canadian and Commonwealth Studies
Community Arts
Judaic Studies
Latin-American and Iberian Area Studies
Russian Area Studies
Women's Studies

See also: Summer Study Programs under Department of Foreign Languages.
English as a Second Language — Department of Foreign Languages.

GRADUATE PROGRAMS*

Biology (MS)
Chemistry, Industrial (MS)
Communication (MA)
Computer Science (MS, Ph.D.)
English (MA)
History (MA)
Mathematical Science (MS)

Physics (MS, Ph.D.)
Political Science (MA)
Psychology, Clinical (MS)
Psychology/Human Factors (Ph.D.)
Psychology, Industrial (MS)
Sociology, Applied (MA)
Statistical Computing (MS)

*See the Graduate catalog.

Recent legislation has mandated changes in program admission prerequisites, program length, and course levels. This document may not include the final versions of these changes. See your college advisor for current information.
COLLEGE OF ARTS AND SCIENCES

Dean: Kathryn L. Seidel, FA 511, Phone (407) 823-2251
Associate Dean: Haven C. Sweet, FA 511, Phone (407) 823-2251
Associate Dean: Ben Morgan, FA 511, Phone (407) 823-2251
Associate Dean: Bruce A. Whisler, FA 511, Phone (407) 823-2251
Assistant Dean: M. Elliot Vittes, FA 511, Phone (407) 823-2251

The College of Arts and Sciences, the largest academic unit in the University, includes the following departments: Art; Biology; Chemistry; Communication; Computer Science; English; Foreign Language; History; Liberal Studies, Mathematics; Music; Philosophy; Physics, Political Science; Psychology; Sociology and Anthropology; Statistics; and Theatre.

In keeping with the aims of the University of Central Florida, the College is responsible for all programs in the broad areas of the humanities, the arts, the natural sciences, and the social sciences. The departments offer more than sixty baccalaureate, graduate, and preprofessional programs in these areas. For additional information concerning graduate programs, please refer to the Graduate Catalog.

In addition to providing strong academic degree programs in the areas noted above, the College of Arts and Sciences makes available a wide selection of courses which are designed to complement the offerings of the other four colleges of the University. These offerings include most of the courses necessary to satisfy the University's general education requirement.

A student enrolled in the College as an undergraduate must fulfill all University degree requirements including those for general education, as well as the particular requirements set forth within each area of specialization. Computer proficiency is determined within the student's department of major. Depending on the program, evaluation may be via a written test, relevant projects, specific exercises within a course, or an entire course dealing with computers. To be certified for graduation, a student must achieve at least a "C" grade point average (2.0) in the courses of his or her major and/or minor. Some departments also require a 2.0 in each major course. Students are advised to consult their advisor for specific policies.

A student whose written or oral communication in any course is deemed unsatisfactory may be referred to the Dean by the instructor. Additional coursework or an individual study program, consistent with the needs of the student, may be assigned and must be completed before the degree is granted.

PREPROFESSIONAL PROGRAMS

PRELAW PROGRAM
Prelaw Coordinator: Dr. Roger Handberg, FA 414, Phone (407) 823-2608

There is no preferred major for prelaw. Law schools accept superior students with a good liberal arts background, regardless of major field. A Bachelor of Arts or Bachelor of Science degree with approximately three-fourths of the course work representing theory content is typically suggested. Majors such as English, History, Legal Studies, Philosophy, Sociology, and Political Science meet this criterion. The quality of undergraduate education for the legal profession, according to the Association of American Law Schools, is grounded in three basic skills and insights: comprehension and expression in words, critical understanding of the human institutions and values with which the law deals, and the creative power of thinking. Law schools require that the Law School Admission Test (LSAT) be taken prior to consideration for admission.

General information pertaining to programs of study, the LSAT, careers, and law schools can be obtained from the Pre-Law Coordinator.

Advisement of prelaw students will be provided in the area where a major is chosen. For example, a prelaw student who wishes to emphasize the historical foundations should seek advisement in the Department of History; for emphasis in political science advisement should be sought in the Department of Political Science; emphasis in economics should be gained through advisement in Economics programs in either the College of Arts and Sciences or the College of Business Administration; emphasis in Legal Studies can be pursued in the Department of Criminal Justice and Legal Studies in the College of Health and Public Affairs.
PREHEALTH PROFESSIONS
The College of Arts and Sciences offers courses which fulfill admission requirements for professional schools in the Health Sciences. Refer to the Biology Department section for additional information.

ADVISEMENT
Office of Academic Support and Information Services (OASIS)
Director: Ms. Judith Boyte, FA 202, Phone (407) 823-2492

The Office of Academic Support and Information Services (OASIS) is the primary office for undergraduate academic assistance in the College of Arts and Sciences. OASIS assists students in the College of Arts and Sciences with matters concerning College and University requirements, policies and procedures. The Office oversees General Education course evaluation and substitutions as well as evaluation and application of TSD credits (CLEP and AP) for Arts and Sciences students.

Questions concerning University and College academic policies affecting Arts and Sciences majors should be directed to the OASIS staff in FA 202 or by calling (407) 823-2492.

Program Planning
Although suggested curricula are available in most areas, students will plan their program in consultation with a faculty advisor appointed by the chair of the major department or by the Dean of the College of Arts and Sciences.

Foreign Language Requirements College of Arts and Sciences

<table>
<thead>
<tr>
<th>Major</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art</td>
<td>B.A. Art History — 2 years (4 semesters)/proficiency</td>
</tr>
<tr>
<td></td>
<td>B.A. B.F.A. Studio Art — 2 semesters/proficiency</td>
</tr>
<tr>
<td>Biology</td>
<td>no requirement</td>
</tr>
<tr>
<td>Chemistry</td>
<td>no requirement</td>
</tr>
<tr>
<td>Communication</td>
<td>2 semesters/proficiency</td>
</tr>
<tr>
<td>Computer Science</td>
<td>2 semesters/proficiency</td>
</tr>
<tr>
<td>Economics</td>
<td>B.A. — 2 semesters/proficiency</td>
</tr>
<tr>
<td>English</td>
<td>3 semesters/proficiency</td>
</tr>
<tr>
<td>Foreign Languages</td>
<td>4 semesters</td>
</tr>
<tr>
<td>History</td>
<td>2 semesters/proficiency</td>
</tr>
<tr>
<td></td>
<td>strongly recommends 4 semesters for students considering graduate school</td>
</tr>
<tr>
<td>Liberal Studies Program</td>
<td>B.A. — 2 semester/proficiency</td>
</tr>
<tr>
<td></td>
<td>B.S. — one approved multicultural course or one semester proficiency.</td>
</tr>
<tr>
<td>Mathematics</td>
<td>2 semesters/proficiency</td>
</tr>
<tr>
<td>Music</td>
<td>B.A. — 3 semesters/proficiency</td>
</tr>
<tr>
<td></td>
<td>B.M. — 2 semesters/proficiency</td>
</tr>
<tr>
<td>B.M.E. — none</td>
<td></td>
</tr>
<tr>
<td>Physics</td>
<td>2 semesters/proficiency</td>
</tr>
<tr>
<td>Philosophy</td>
<td>2 semesters/proficiency</td>
</tr>
<tr>
<td>Political Science</td>
<td>2 semesters/proficiency</td>
</tr>
<tr>
<td>Psychology</td>
<td>B.A. — 3 semesters/proficiency or 2 semesters plus 9 hours diversity track,</td>
</tr>
<tr>
<td></td>
<td>B.S. — 2 semester/proficiency plus 9 hrs. science/mathematics</td>
</tr>
<tr>
<td>Social Sciences</td>
<td>B.S — no foreign language requirement</td>
</tr>
<tr>
<td>Interdisciplinary</td>
<td>one approved multicultural course is recommended.</td>
</tr>
<tr>
<td>Sociology/Anthropology</td>
<td>Anthropology — 2 semesters/proficiency</td>
</tr>
<tr>
<td></td>
<td>Sociology — 2 semesters/proficiency</td>
</tr>
<tr>
<td></td>
<td>AND either a third semester in the language</td>
</tr>
<tr>
<td></td>
<td>OR one approved enhancement course (consult department)</td>
</tr>
<tr>
<td>Statistics</td>
<td>no requirement</td>
</tr>
<tr>
<td>Theatre</td>
<td>B.A. — 2 semesters/proficiency</td>
</tr>
<tr>
<td></td>
<td>B.F.A. — no language requirement</td>
</tr>
</tbody>
</table>
FOREIGN STUDY CENTERS
Undergraduate Interinstitutional Transient Program
The State University System operates study centers in London, England and Florence, Italy during the fall and spring semesters. Students with 27 or more semester hours of credit and a GPA of 2.5 or above in all state universities are eligible to apply for one or both semesters as inter-institutional transient students. Faculty at the centers are drawn from the nine state universities. While credits are earned through Florida State University, which administers the program on behalf of the State University System, credits are fully transferable within the System. Students at the Centers are considered to be resident in their home institutions for attendance and degree purposes.

Classes at the Florence Center emphasize art history, Italian, social sciences, and the humanities; at the London Center, theatre, business, English, history and the social sciences are emphasized. Field trips and museum visits are common to both. For further information, consult Dr. Thomas Greenhaw in the Department of History (London Program), at (407) 823-2224 or Dr. Robert Flick in the Department of Philosophy (Florence Program), at (407) 823-2273.

AFRICAN-AMERICAN STUDIES PROGRAM
The College of Arts and Sciences offers a minor in African-American Studies consisting of a minimum of 18 semester hours.

Program Requirements:
1. Required: any six from this list or approved upper division courses. (18 hours)
   AMH 3570  Afro-American History  3 hours
   ARH 3520  African Arts  3 hours
   COM 4461  Intercultural Communication  3 hours
   LIN 4612  African-American English  3 hours
   LIT 4354  Afro-American Writers  3 hours
   PUP 3914  Minorities in Politics  3 hours
   SYD 3720  Race and Ethnic Minorities in the U.S.  3 hours
   SOP 3724  Psychology of Racial Prejudice  3 hours
   SOP 3930  Psychology of Ethnic Minorities  3 hours
2. Other courses as approved
For further information, contact Dr. William Wooten, Psychology Department, PH 305C, (407) 823-2216.

AMERICAN STUDIES PROGRAM
The minor in American Studies requires at least 21 hours of approved upper-division courses. The courses include at least three hours of restricted electives from each of these three fields: literature and humanities, social sciences, and history. Other courses may be chosen from the list of approved courses which is available from the American Studies advisor.
For further information, contact Dr. John Lynxwiler, FA 405, (407) 823-2227.

ANTHROPOLOGY (see Department of Sociology and Anthropology)

DEPARTMENT OF ART
Chair: Robert T. Reedy, VAB 117, Phone (407) 823-2676
Faculty: Abbas, Chavda, Congdon, Eyfells, Gaudnek, Haran, Lotz, Reedy, Rivers, Wahman, Wellman

The Department of Art has 12 full-time and 12 part-time faculty members teaching studio arts, design, and art history. The curriculum in Art provides professional preparation in art history, and in the studio areas of ceramics, P.A.V.E. (Partners in Art for Visual Education), drawing, fibers and fabrics, graphic design, painting, photography, printmaking, and sculpture, as well as combination specializations. Both the Bachelor of Arts and the Bachelor of Fine Arts degrees are offered. Competitive scholarships and awards are available to currently enrolled full-time UCF art majors through portfolio reviews by faculty. These awards are sponsored by UCF and the Altrusa Club of Winter Park.
MINORS AND CERTIFICATE

The Department of Art offers 3 minors, one in studio art, one in art history, and one in P.A.V.E. (Partners in Art for Visual Education). The Art Department residency requirement consists of 6 semester hours of regularly scheduled 3000-4000 level art courses. These 6 semester hours must be in an area of specialization.

1. Studio Art: Required courses: ARH 2050 & 2051, ART 2201 & 2203, 2300 and 2301 and six semester hours of studio art at the 3000 and 4000 level. To be eligible for a minor in art, a student must have a GPA of at least 2.0 in all art courses subject to the following constraints: no "D" grades in art courses from other institutions are transferable. Total hours: 24.

2. Art History: Required courses: ARH 2050 & 2051; ARH 4310, 4430, 4450; a non-western course chosen from ARH 3530, 4545, 3683 or 4655; one of the following: ARH 4350, ARH 4892, 4458, 5478; and, 6 hours of electives from any ARH course.

3. Partners in Art in Visual Education (P.A.V.E.)

A minor in Community Arts/P.A.V.E. is offered for the student who is majoring in Art, Music, Theatre, or English (with a Creative Writing focus). Students interested in the minor should contact the department chair.

Bachelor of Arts: Art

Degree Requirements
1. See Undergraduate Degree Requirements
2. See special college and/or department requirements

A student must achieve at least a "C" grade point average (2.0) in the courses of his or her major.

No "D" grades in Art courses from other institutions are transferable.

Departmental Residency Requirement consists of at least 18 semester hours of regularly scheduled 3000-4000 level courses taken from the UCF Department of Art. Nine of these must be in an area of specialization.

3. Required courses Varies with specialization
4. Restricted Electives Varies with specialization
5. Electives To be selected primarily from upper level courses outside the Department, with the approval of the student's advisor.

Total Semester Hours Required 120 hours

AREAS OF SPECIALIZATION

1. Art History Degree Requirements

1. Art History Foundation Courses
   - ARH 2050, 2051 History of Art I, II
   - ART 2201C Design Fundamentals I

2. Art History Core Courses
   - ARH 4310 Early Italian Renaissance Art
   - ARH 4430 Nineteenth Century Art
   - ARH 4450 Twentieth Century Art

A Non-Western Art History Course (one of the following):
   - ARH 3520 African Art
   - ARH 3545 Art of India
   - ARH 3530 Asian Art
   - ARH 4655 MesoAmerican Art

   One of the following courses: Baroque Art

   - ARH 4350 Baroque Art
   - ARH 4312 Later Italian Renaissance
   - ARH 4458 Women & Art in the 20th Century America
   - ARH 4992 Women in Art
   - ARH 4800 Theory and Criticism
   - ENC 3311 Expository Writing

3. Art History Electives (three of the following)
   - ARH 3520 African Art
   - ARH 3728 American Art
### ARH 3456  Art since 1945
### ARH 5451  Artistic World Views
### ARH 4458  Women and Art in 20th Century America
### ARH 4892  Women in Art
### ARH 4350  Baroque Art
### ARH 5478  Contemporary Women Artists
### ARH 4170  Greek and Roman Art
### ARH 3710  History of Photography I
### ARH 3711  History of Photography II
### ARH 3720  History of Prints
### ARH 4312  Later Italian Renaissance
### ARH 4655  MesoAmerican Art
### ARH 3683  Southern Folk Arts
### ARH 3820  Visual Arts Administration
### ARH 4892  Women in Art

**Optional Upper Division Restricted Electives** (0-6 hours)

- any AMH, ANT, ART, ENL, EUH, HUM, LIT, or PHI 3000-4000 level course

4. **Additional Requirements** (4 hours)
   - ARH 4912  Senior Thesis
   - ARH 4906  Comprehensive Exam

5. **Foreign Language Requirement** (0-14 hours)
   - Two years or the equivalent proficiency examination is required.

   **Total Semester Hours Required** 120 hours

### II. Art (Studio)

1. **Required Courses** (27 hours)
   - ART 2201C, 2203C  Design Fundamentals I, II
   - ART 2300C, 2301C  Drawing Fundamentals I, II
   - ARH 2050, 2051  History of Art I, II
   - ARH 3000-4000  Art History Courses (Any 3 courses)

2. **Studio Specialization** (15 hours)
   - 3000-4000 level courses from:
     - Ceramics, Drawing, Fibers & Fabrics, Graphic Design, (see specialization in Graphic Design), Painting, Photography, Printmaking, and Sculpture.

3. **Restricted Studio Electives** (12 hours)
   - 3000-4000 level courses from at least 3 areas outside the area of specialization: Ceramics, Drawing, Fiber & Fabrics, Graphic Design, Painting, Printmaking, Photography, Sculpture, and Special Topics Studio Courses.

4. **Foreign Language** (0-8 hours)
   - One year or the equivalent proficiency examination is required.

5. **Portfolio Requirement**
   - Each senior is required to submit a portfolio of representative work in the student's area of specialization, for review and approval by faculty, during their last semester of matriculation toward the degree.

   **Total Semester Hours Required** 120 hours

### III. Graphic Design Specialization

**Portfolio Requirements for Graphic Design Specialization:** Students wishing to transfer courses taken at other institutions must present a portfolio of work for evaluation toward use in the specialization. This program's last two-year curriculum is sequential. All students must submit portfolio applications by April 1st in order to begin the program in the subsequent Fall semester.

**Graphic Design Specialization**

1. **Required Courses** (27 hours)
   - ARH 2050, 2051  History of Art I, II
   - ARH 3000-4000  Art History Courses (Any 3 hours)
   - ART 2201C, 2203C  Design Fundamentals I, II

112
ART 2300C, 2301C Drawing Fundamentals I, II 6 hours
2. Studio Specialization (15 hours)
   ART 3239 Graphic Design I 3 hours
   ART 3232 Graphic Design II 3 hours
   ART 3610 Computer Graphics 3 hours
   ART 4235 Adv. Graphic Design 3 hours
   ART 4237 Special Problems in Graphic Design 3 hours
3. Restricted Studio Electives (12 hours)
   3000-4000 level courses from at least 3 areas outside the area of specialization
4. Foreign Language (0-8 hours)
   One year or the equivalent proficiency examination is required.
5. Graphic Design (Graduation) Portfolio Requirement
   The Graduation Portfolio is representative of studio work done in Graphic Design specialization. At least 15 projects must be submitted by the last week of the semester in which student files an Intent to Graduate form.

Total Semester Hours Required 120 hours

Bachelor of Fine Arts: Art

The B.F.A. degree is recommended for studio art majors who plan to attend graduate school. Admission to the B.F.A. degree program requires the student to submit a formal application and a portfolio to the Faculty no earlier than the first semester of the student's senior year (upon completion of 90 semester hours). Once admitted to the B.F.A. program, the student must complete an additional 30 semester hours at UCF, with 12 hours in Art courses. A senior exhibition (ART 4932) is required for graduation. A portfolio is required for the Graphic Design specialization.

Degree Requirements
1. See University Degree Requirements.
   Students must achieve at least a "B" grade point average (3.0) in the courses of their major.
2. B.F.A. requires 2 semesters/proficiency in Foreign Language
3. See Special college and/or department requirements: No "D" grades in transfer Art courses; Department Residency Requirement consists of at least 18 semester hours of regularly scheduled upper-level courses must be taken from the UCF Department of Art. Nine of these hours must be in the area of specialization.
4. Required Courses (27 hours)
   ART 2201C, 2203C Design Fundamentals I, II 6 hours
   ART 2300C, 2301C Drawing Fundamentals I, II 6 hours
   ARH 2050, 2051 History of Art I, II 6 hours
   ARH 3000-4000 Art History Courses 9 hours
   ARE and ARH courses are acceptable with the consent of advisor.
5. Area Specialization 3000-4000 level courses from: Ceramics, Drawing, Graphic Design, Painting, Printmaking, Photography, and Sculpture or combinations. In a combination, a student must have a minimum of 15 hours in one specialization. Single area specialization requires 18 hours.
   *(Minimum credit hour requirement for Graphic Design specialization is 18 hours.)
6. Restricted Studio Electives (21 hours)
   3000-4000 level courses from at least three areas outside the student's specialization: Ceramics, Drawing, Fibers & Fabrics, Graphic Design, Painting, Printmaking, Photography, Sculpture, and Special Studio Topics Courses.
7. BFA Exhibit/Seminar (ART 4932) Requirement.
   (BFA Exhibit Seminar is only offered during Spring Semester) 3 hours
   Total Semester Hours Required 120 hours
ASIAN STUDIES

Asian Studies: 24 hours. An interdisciplinary minor designed to enhance multicultural education by offering students both an overview of Asian civilization and a detailed study of its most significant features. The focus of the program is on India, China, and Japan. Course work will include upper-level classes from the curricula of participating programs (anthropology, art history, economics, foreign languages, history, humanities, philosophy, political science). Students are required to take 21 hours from an approved list of courses; in addition they are required to take one course providing an overview of Asia (e.g., ANT 3360 or HUM 3401). Students taking foreign language classes must complete at least six hours in the sequence chosen (e.g., Chinese, Japanese). For further information, consult Dr. Daniel White, Department of Philosophy.

DEPARTMENT OF BIOLOGY

Chair: D.H. Vickers, BL 210, Phone (407) 823-2141
Faculty: Ehrhart, Koevenig, Kuhn, Lindbeck, Osborne, Snelson, Stout, Sweet, Taylor, Vickers, von Kalm, Walters, Weishampel, Whittier, Ellis (Professor Emeritus)

The Department of Biology offers a Bachelor of Science degree program in Biology, a minor in Biology, and the Master of Science in Biology. The core curriculum provides a background in the chemical, mathematical, and physical sciences, as well as broad preparation in the biological sciences. This diverse background opens career opportunities for graduates in areas outside of their particular degree program. Graduates are well prepared to further their education in professional or graduate schools. Selection of electives, in consultation with a faculty advisor, permits emphasis on a specific subspecialty within the degree program. Careful selection of restricted and unrestricted electives allows a student to satisfy all requirements for admission to professional or graduate school, while at the same time completing a B.S. degree in Biology. Research experience and exposure to specialized topics not taught through formal courses may be gained through independent study contracts.

SUBSPECIALITIES WITHIN THE BIOLOGY DEGREE PROGRAM

The undergraduate Biology curriculum provides students with the basic principles that undergird the science, and introduces options traditionally only open at the advanced level. Most entry-level students need the broad exposure provided by the lower division core curriculum in order to make informed decisions about their career goals. Although some Biology majors are preparing themselves for entry into Medical or other narrowly defined professional areas, these professions all demand that students master broad biological principles prior to beginning more advanced study. Specialization has traditionally been pursued at the postgraduate level.

Even though all students majoring in Biology receive a single degree (B.S. in Biology), it is possible to emphasize areas of interest at the upper division. Specialization is dependent upon faculty expertise and course availability. Three areas of emphasis are suggested; although other possibilities exist. The specific courses selected must comply with departmental requirements and area distributions, and should be chosen in consultation with a faculty advisor.

ECOLOGY — Physiochemical Limnology, Biological Limnology, Aquatic Biology, Plant Geography and Ecology, an additional course in Biostatistics.

MINOR IN BIOLOGY

The Department of Biology offers a minor in Biology consisting of a minimum of 26 hours. Required courses (21 hours): BSC 2010C; BSC 2011C; PCB 3023; PCB 3043; PCB 3063; PCB 4683. Upper Division Restricted Electives: At least 7 hours of formal course work taught within the Department of Biology (designated as being within the College of Arts & Sciences-AS).
To be eligible for a minor in Biology a student must have an overall GPA of 2.0 in all courses used to satisfy minor requirements, subject to the following constraints: (A) No credit by exam (CLEP, TSD, Military credit) may be used; (B) No "D" or "S" grades from other institutions will be accepted; (C) At least 10 of the 28 hours must be earned in residence at UCF.

Bachelor of Science: Biology

Degree Requirements

1. To be eligible for an undergraduate degree in Biology a student must have a GPA of 2.0 in all UCF courses taken in both the Biology Core and the Upper Division Restricted Electives, subject to the following constraints: (A) No credit by exam (CLEP, TSD, Military credit) may be used; (B) No "D" or "S" grades from other institutions will be accepted; (C) No more than 4 hours of Independent Study, Directed Research or similar types of credit may be applied toward major requirements; (D) At least 15 hours of all Biological Sciences credits applied toward the major must be earned in residence at UCF in the Department of Biology. Students seeking a double major must satisfy the requirements for both majors and must take no fewer than 40 semester hours of upper division restricted elective course work appropriate to the combined areas of specialization of the two majors.

2. See University undergraduate degree requirements for GEP courses required outside major. (24 hours)

3. Core requirements:
   Must be satisfied by all students seeking an undergraduate degree from the Department of Biology.
   a. Biology Core Courses (21 hours)
      BSC 2010C General Biology 4 hours
      BSC 2011C Biological Diversity 4 hours
      The above courses are prerequisites to all upper division biology courses.
      PCB 3023 Molecular Cell Biology 3 hours
      PCB 3043 Ecology 3 hours
      PCB 3063 Genetics 3 hours
      PCB 4683 Population Biology and Evolution 4 hours
      The following represent minimum physical science requirements of a Life Science student. Students planning on entering professional or graduate school should take Biochemistry (BCH 4053, 4054) as well as additional Calculus courses. Students are urged to consult their advisor.

   b. Chemistry Core Courses (16-18 hours)
      CHM 2045, 2046, 2046L Chem. Fund I and II with lab 8 hours
      and
      CHM 2210, 2211, 2211L Organic Chem. I & II with lab 8 hours
      or
      CHM 3120C and Analytical Chemistry and 5 hours
      or
      CHM 2205 Intro Organic & Biochemistry 5 hours
      c. Physics Core Courses (8 hours)
         PHY 2053C, 2054C College Physics I and II 8 hours
         or
         PHY 2048 & PHY 2048L Physics for Engr. & Sci. I with Lab 4 hours
         and
         PHY 2049 & PHY 2049L Physics for Engr. & Sci. II with Lab 4 hours
      d. Math Core Courses (7 hours)
         STA 2023 Statistical Methods 3 hours
         MAC 2311 Calculus with Analytic Geometry 4 hours

4. Upper Division Restricted Electives: (23 hours)
   Must be selected from the course groupings below and each student must complete at least one course dealing exclusively with animals (marked a) and one course dealing exclusively with plants (marked b). In addition, each student must complete at least three credit hours from each group. Transferred courses must be at a 3000 level or higher, and be evaluated by an advisor, in order to count as an Upper Division Restricted Elective. Courses at the 5000 level are only open to seniors and beginning graduate students.
<table>
<thead>
<tr>
<th>Form/Function</th>
<th>(minimum of one lecture course)</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCH 4053</td>
<td>Biochemistry I</td>
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<tr>
<td>BCH 4054</td>
<td>Biochemistry II</td>
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<tr>
<td>b BOT 4223C</td>
<td>Plant Anatomy</td>
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<tr>
<td>b BOT 4303C</td>
<td>Plant Kingdom</td>
<td>5</td>
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<tr>
<td>b BOT 4503C</td>
<td>Plant Physiology</td>
<td>4</td>
</tr>
<tr>
<td>BSC 4103</td>
<td>History of Biology</td>
<td>3</td>
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<td>MCB 4414</td>
<td>Microbial Metabolism</td>
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<td>PC 3063L</td>
<td>Genetics Laboratory</td>
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<td>PC 4524</td>
<td>Molecular Biology II</td>
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<tr>
<td>PCB 3233</td>
<td>Immunology</td>
<td>3</td>
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<tr>
<td>a BOT 4723C</td>
<td>Animal Physiology</td>
<td>4</td>
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<tr>
<td>a ZOO 3713C</td>
<td>Comparative Vertebrate Anatomy</td>
<td>5</td>
</tr>
<tr>
<td>a ZOO 4603C</td>
<td>Embryology/Development</td>
<td>5</td>
</tr>
<tr>
<td>a ZOO 4753C</td>
<td>Vertebrate Histology</td>
<td>5</td>
</tr>
<tr>
<td>Environmental</td>
<td>(minimum of one lecture course)</td>
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<tr>
<td>b BOT 3680C</td>
<td>Florida Wild Flowers</td>
<td>4</td>
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<tr>
<td>b BOT 3800</td>
<td>Ethnobotany</td>
<td>3</td>
</tr>
<tr>
<td>b BOT 3820C</td>
<td>Plants and Urban Environment</td>
<td>3</td>
</tr>
<tr>
<td>b BOT 5623C</td>
<td>Plant Geography &amp; Ecology</td>
<td>4</td>
</tr>
<tr>
<td>b BOT 5686C</td>
<td>Conservation of Native Plants</td>
<td>4</td>
</tr>
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<td>PCB 3043L</td>
<td>Ecology Laboratory</td>
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<td>PC 3442</td>
<td>Florida Aquatic Ecology</td>
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<td>PC 4302C</td>
<td>Physiochemical Limnology</td>
<td>4</td>
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<td>PC 4303C</td>
<td>Biological Limnology</td>
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<td>PC 5326C</td>
<td>Ecosystems of Florida</td>
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<td>PC 5045C</td>
<td>Conservation Biology</td>
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<td>PC 5046C</td>
<td>Advanced Ecology</td>
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<td>a ZOO 4880C</td>
<td>Fisheries Management</td>
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<td>a ZOO 5815</td>
<td>Zoogeography</td>
<td>4</td>
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<tr>
<td>Systematic</td>
<td>(minimum of one lecture course)</td>
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<tr>
<td>b BOT 4713C</td>
<td>Plant Taxonomy</td>
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<td>b BOT 5495C</td>
<td>Bryology</td>
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<td>a ENY 4004C</td>
<td>General Entomology</td>
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<td>MCB 3013C</td>
<td>General Microbiology</td>
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<tr>
<td>MCB 4114C</td>
<td>Microbial Systematics</td>
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<tr>
<td>PC 3301C</td>
<td>Aquatic Biology</td>
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<tr>
<td>a ZOO 3303C</td>
<td>Vertebrate Zoology</td>
<td>4</td>
</tr>
<tr>
<td>a ZOO 4203C</td>
<td>Invertebrate Zoology</td>
<td>4</td>
</tr>
<tr>
<td>a ZOO 5456C</td>
<td>Ichthyology</td>
<td>4</td>
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<tr>
<td>a ZOO 5463C</td>
<td>Herpetology</td>
<td>4</td>
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<tr>
<td>a ZOO 5475C</td>
<td>Ornithology</td>
<td>4</td>
</tr>
<tr>
<td>a ZOO 5486C</td>
<td>Mammalogy</td>
<td>4</td>
</tr>
</tbody>
</table>

**Bachelor of Science: Biology/Preprofessional**

The University of Central Florida does not offer a preprofessional degree. However, most preprofessional students earn a B.S. degree in Biology while completing their admission requirements for professional school. The following suggested curriculum is not a degree program but is simply a composite suggestion as to how a student might complete a degree in Biology while completing entrance requirements for professional or graduate school. Note that the minimum cognate science requirements listed below are more rigorous than those listed earlier under Departmental requirements.

1. See University undergraduate degree requirements for GEP courses required outside major (24 hours)

Total Semester Hours Required: 120
2. Required Departmental Core Curriculum

A. Biology (21 hours)
   - BSC 2010C General Biology 4 hours
   - BSC 2011C Biological Diversity 4 hours
   - PCB 3023 Molecular Cell Biology 3 hours
   - PCB 3043 Ecology 3 hours
   - PCB 3063 Genetics 3 hours
   - PCB 4683 Population Biology and Evolution 4 hours

B. Cognate Sciences (35 hours)
   - CHM 2045, 2046, 2046L Chem. Fund I and II with lab 8 hours
   - CHM 2210, 2211, 2211L Organic Chem. I & II with lab 8 hours
   - PHY 2048, 2048L Physics for Eng. & Sci. I with lab 4 hours
   - PHY 2049, 2049L Physics for Eng. & Sci. II with lab 4 hours
   - MAC 2311, 2312 Calc & Anal Geom I & II 8 hours
   - STA 2023 Statistical Methods 3 hours

3. Restricted Electives: (suggested selections) (23 hours minimum)

   The following courses are suggested as being appropriate to various preprofessional students. Actual selections should be made in consultation with the student's advisor while paying attention to the specific admission requirements of the particular professional school to which the student expects to apply.

   Form/Function
   - BCH 4053 Biochemistry I 3 hours
   - BCH 4054 Biochemistry II 3 hours
   - PCB 3063L Genetics Lab 1 hour
   - PCB 4524 Molecular Biology II 3 hours
   - PCB 4723 Animal Physiology 4 hours
   - a ZOO 3713C Comparative Vertebrate Anatomy 5 hours
   - a ZOO 4603C Embryology/Development 5 hours
   - a ZOO 4753C Vertebrate Histology 5 hours

   Environmental
   - b BOT 3800 Ethnobotany 3 hours

   Systematic
   - MCB 3013C General Microbiology 5 hours
   - a ZOO 3303C Vertebrate Zoology 4 hours

4. Upper Division Electives may include electives appropriate to particular professional subspecialty. Students should carefully select unrestricted electives with the assistance of their preprofessional advisor.

CANADIAN & COMMONWEALTH AREA STUDIES PROGRAM

Director: Dr. M. Elliot Vettes, HFA 511, Phone 823-2251

Canadian & Commonwealth Area Studies offers a minor degree. The program focuses on various aspects of Canada, the United Kingdom, and Commonwealth countries. Two tracks are offered to address more specific interests of students. Eighteen credits are required for the minor. A total of six credits may be transferred into the minor with the director's permission.

Track 1. Canadian Studies

This track focuses specifically on Canadian society, with an emphasis either on the Macdonald (English Canadian) or Cartier (French Canadian) elements.

Required courses (6 hours)
   - AMH 3800 Canadian History;
   - CPO 3132 Introduction to Canadian Studies

Directed courses (6 hours)
   - ANT 3312, ANT 3313, CPO 4133, COP 4062,
   - LIT 3188, PUP 3204, others by director's permission

Macdonald emphasis (6 hours)
   - CPO 4123, EUH 4501, EUH 4502, PHH 3402
Cartier emphasis
FRE 2200, FRE 2201, FRE 2240, FRE 3244,
FRE 3420, FRE 4421, FRE 4422, FRW 3740

Track 2. Commonwealth Studies
This track focuses on the British Isles and the extended Commonwealth countries of Australia,
New Zealand, and Canada.
Required courses (6 hours)
CPO 3132 Introduction to Canadian Studies;
EUH 4502 British History: 1815-today
Directed electives:
CPO 4123, CPO 4062, EUH 4501, ENL 3051,
ENL 4220, ENL 4241, ENL 4251, ENL 4330, ENL 4341,
ENL 4353, ENL 4373, PHH 3402; others by director's permission.

DEPARTMENT OF CHEMISTRY
Chair: G. Cunningham, CH 117, Phone (407) 823-2246
Faculty: Clausen, Elsheimer, Geiger, Hampton, Juge, Kujawa (Geology), Madsen, Mattson,
McGee (Forensic Science), Miles, Phanstiel, Price, Richardson, Schweitzer, Trefonas
The Department of Chemistry offers courses and programs which lead to a Bachelor of Science in Chemistry, a Bachelor of Science in Forensic Science, a minor in Chemistry and a Master of Science in Industrial Chemistry.

The undergraduate degree program in chemistry is accredited by the American Chemical Society Committee on Professional Training. It prepares the graduate for career opportunities in the chemical or related industries, or in government laboratories. The program also prepares students for further study at the graduate level in chemistry or in a related area such as pharmacology or toxicology. With an appropriate choice of electives it also constitutes excellent preparation for the professional schools of dentistry, medicine, and veterinary medicine.

MINOR
The Department of Chemistry offers a minor consisting of a minimum of 28 semester hours.
Required courses (20-22 semester hours):
CHM 2045, 2046, 2046L, 2210, 2211, 2211L, and 3120C.
Restricted electives (6-8 semester hours minimum):
At least one course must be selected from group I and the remaining from group I and/or II:
Group I: CHM 3212L, 4130C; BCH 4103L, CHS 3531, CHM 3411L, CHM 5451L
Group II: BCH 4053, 4054, CHM 3410, 3411, 5225, 5226, CHS 4110C, 4200,
CHM 5235, 5450

To be eligible for a minor in Chemistry a student must have a GPA of at least 2.0 in all UCF Chemistry courses and an overall 2.0 GPA in all Chemistry courses used to satisfy this requirement. A minimum of 11 hours of Chemistry must be earned at UCF and no "D" grades from another institution will be accepted.

Bachelor of Science: Chemistry
Degree Requirements
1. See Undergraduate Degree Requirements
2. See special college and/or department requirements
3. To be eligible for an undergraduate degree in Chemistry a student must have an overall GPA of at least 2.0 in all UCF Chemistry courses and an overall 2.0 GPA in all Chemistry courses used to satisfy this requirement. Grades earned in CHM 4930 and CHM 4912 will not be applied in the determination of the Chemistry GPA. At least 15 Chemistry credits must be earned at UCF and no "D" grades from another institution will be accepted.
4. Required Courses (72 hours)
CHM 2045, 2046
CHM 2046L
CHM 2210, 2211
CHM 2211L, 3212L
CHM 3120C
CHM 3410, 3411
Chemistry Fundamentals I, II
Chemistry Fundamentals Laboratory
Organic Chemistry I, II
Organic Laboratory Techniques I, II
Analytical Chemistry
Physical Chemistry I, II
7 hours
1 hour
6 hours
4 hours
5 hours
7 hours
118
Forensic Science Program

Director: W. W. McGee, CH 221, Phone (407) 823-2788

Forensic Science is the profession which serves the scientific needs of the justice system. The program at UCF has been designed to provide the student with an educational background in criminalistics.

The principal job of the forensic scientist is to examine physical evidence gathered at the scene of a suspect criminal action. The criminalist may work on physical evidence such as blood, hairs, fibers, or pharmaceutical and clandestine drug preparations. Upon completion of a thorough laboratory examination of the evidence, the forensic scientist presents his/her findings in court. The goal of the Forensic Science program is to prepare the student for this demanding profession.

Within the Forensic Science program, the student may choose one of two programs of study. The two areas of emphasis are the Analysis Track and the Serology Track.

Bachelor of Science: Forensic Science

Degree Requirements
1. See Undergraduate Degree Requirements
2. See special college and/or department requirements
3. Science Core Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>BSC 2010C</td>
<td>General Biology</td>
<td>4</td>
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<tr>
<td>CHM 2045, 2046</td>
<td>Chemistry Fundamentals I, II</td>
<td>7</td>
</tr>
<tr>
<td>CHM 2046L</td>
<td>Chemistry Fundamentals Laboratory</td>
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</tr>
<tr>
<td>CHM 2210, 2211</td>
<td>Organic Chemistry I, II</td>
<td>6</td>
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<td>CHM 2211L</td>
<td>Organic Laboratory Techniques I</td>
<td>2</td>
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<td>CHM 3120C</td>
<td>Analytical Chemistry</td>
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<tr>
<td>COP 3200</td>
<td>Computer Programming</td>
<td>3</td>
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<tr>
<td>MAC 3253, 3254</td>
<td>Applied Calculus I, II</td>
<td>6</td>
</tr>
<tr>
<td>STA 22023</td>
<td>Statistical Methods I</td>
<td>3</td>
</tr>
<tr>
<td>PHY 2053C, 2054C</td>
<td>College Physics I, II</td>
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</table>

Total Semester Hours Required: 120 hours

Courses will be selected with the aid of an advisor and approved in advance by the department chair. Courses will be selected from the physical, biological, mathematical sciences and/or related disciplines and normally will include courses at the 3000 and 4000 level.

5. Restricted Electives

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>BCH 4053</td>
<td>Biochemistry I</td>
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<td>BCH 4054</td>
<td>Biochemistry II</td>
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<tr>
<td>CHM 5225</td>
<td>Advanced Organic Chemistry I</td>
<td>3</td>
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<tr>
<td>CHM 5226</td>
<td>Advanced Organic Chemistry II</td>
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<tr>
<td>CHM 5235</td>
<td>Applied Molecular Spectroscopy</td>
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<td>CHM 5580</td>
<td>Advanced Physical Chemistry</td>
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<td>CHM 5450</td>
<td>Polymer Chemistry</td>
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<td>CHS 5451</td>
<td>Polymer Chemistry Laboratory</td>
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<tr>
<td>CHS 4200</td>
<td>Concepts in Industrial Chemistry</td>
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6. Directed Electives

Courses will be selected with the aid of an advisor and approved in advance by the department chair. Courses will be selected from the physical, biological, mathematical sciences and/or related disciplines and normally will include courses at the 3000 and 4000 level.
4. Forensic Science Core Required Courses

<table>
<thead>
<tr>
<th>Course</th>
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<th>Hours</th>
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<td>CHS 3501</td>
<td>Introduction to Forensic Science</td>
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<td>CHS 3505</td>
<td>Forensic Microscopy</td>
<td>3</td>
</tr>
<tr>
<td>CHS 3531</td>
<td>Forensic Analysis of Controlled Substances</td>
<td>3</td>
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<td>CHS 3511</td>
<td>Trace Evidence</td>
<td>3</td>
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<td>CHS 3595</td>
<td>Forensic Science in the Courtroom</td>
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<tr>
<td>CHS 33531C</td>
<td>Forensic Serology: Classical Methods</td>
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<tr>
<td>CHS 4591</td>
<td>Forensic Science Internship</td>
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5. Tracks: select one

**Forensic Analysis Track**

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<th>Required Courses</th>
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<tr>
<td>ENC 3241 or 3211</td>
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<td>CHM 3410</td>
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<td>CHM 4130C</td>
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Restricted electives, to be selected from:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCB 3013</td>
<td>General Microbiology</td>
<td>5</td>
</tr>
<tr>
<td>BCH 4053, 4054</td>
<td>Biochemistry I, II</td>
<td>6</td>
</tr>
<tr>
<td>BCH 4103L</td>
<td>Biochemical Methods Lab</td>
<td>2</td>
</tr>
<tr>
<td>CHM 3212L</td>
<td>Organic Chemistry Lab</td>
<td>3</td>
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<tr>
<td>CHM 5450</td>
<td>Polymer Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>CHM 5452L</td>
<td>Polymer Chemistry Lab</td>
<td>2</td>
</tr>
<tr>
<td>CHM 5235</td>
<td>Molecular Spectroscopy</td>
<td>3</td>
</tr>
<tr>
<td>PCB 3523, 4524</td>
<td>Molecular Biology I, II</td>
<td>6</td>
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Total Semester Hours Required: 120 hours

**Forensic Serology Track**

<table>
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<tr>
<th>Required Courses</th>
<th>Hours</th>
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<tr>
<td>MCB 3013</td>
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<td>PCB 3233, 3233L</td>
<td>4</td>
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<tr>
<td>PCB 3523, 4524</td>
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<td>BSC 3404</td>
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<td>BCH 4103L</td>
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<td>CHS 4532</td>
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<td>PCB 3063, 3063L</td>
<td>4</td>
</tr>
</tbody>
</table>

Total Semester Hours Required: 129 hours

SCHOOL OF COMMUNICATION

Director: M.D. Meeske, FA 534, Phone (407) 823-2681

The School of Communication offers Bachelor Degree programs in five specific areas. Students have the option of selecting a specialized track for the Film or Journalism degree.

1. Bachelor of Arts: Interpersonal Communication
2. Bachelor of Arts: Journalism A. News/Editorial Track B. Advertising/Public Relations Track
3. Bachelor of Arts: Organizational Communication
4. Bachelor of Arts: Radio-Television
5. Bachelor of Arts: Motion Picture Technology A. Production-Screenwriting B. Animation

Any student contemplating graduate study should be aware of special requirements in some graduate schools, such as foreign languages, statistics, and computer sciences.

Admission to the School of Communication

The Radio-Television, Motion Picture Technology and Journalism (both News Editorial and Advertising/Public Relations) degree programs are designated as limited access programs.
Limited access means there are additional requirements over and above those set for general admission to the University.

Interpersonal Communication and Organizational Communication are NOT limited access degree programs. The policies set for general admission to the University are sufficient to enter the Interpersonal or Organizational Communication majors.

Admission Deadlines

Students intending to major in Radio/Television, Journalism or Motion Picture Technology must apply for admission to the School of Communication through the School office.

Radio/TV and Journalism

Students planning to major in Radio/TV or Journalism (News Editorial or Advertising/Public Relations) should apply only after completing all requirements for admission. Deadlines are:

- October 9, 1996 for Spring 1997
- March 7, 1997 for Summer 1997
- July 7, 1997 for Fall 1997

Motion Picture Technology

Applications for the Motion Picture Technology major are accepted only ONCE PER YEAR. Applications will be accepted January 15, 1997 for admission to Fall term, 1997.

Interpersonal and Organizational Communication

Students NEED to apply to the School office to enter these majors. Only general University admission policies must be met, but students must submit an application to the School in order to be placed in the major. Students wishing to major in Interpersonal or Organizational Communication should see an advisor to obtain proper counseling.

Graduation Requirements

1. A final 2.00/4.00 grade point average in all required courses for a major in Radio-television and Journalism must be completed in order to graduate with a major in the School. NOTE: This grade point average does not include Restricted Electives in the major or other electives. A final 2.0/4.0 grade point average in all required courses is needed for Interpersonal and Organizational Communication majors (not including restricted electives or other electives).

2. Students electing both a major and minor in the School must take the minor courses in excess of the 12 hours required for graduation.

3. The School requires that students initiate a request for a review of graduation requirements at the beginning of the anticipated term of graduation. Failure to file the request may delay graduation.

4. Two semesters/proficiency in Foreign Language is required of all majors.

5. Completion of a 24 hour residency requirement in the major after being admitted. Courses in the major taken prior to admission to the major may meet specific requirements and will count toward the total University hours, but a School residency requirement of 24 hours must be met.

Transfer Limitation

Generally, students may not substitute lower level courses taken at community colleges for Upper Division courses in the School of Communication (except Florida common numbered course work). Students wishing to transfer courses from other colleges must apply for equivalency credit. College catalog, course syllabus, textbook used, or other supporting information must be provided by the student. The School of Communication will evaluate applications for equivalency. [See School Residency requirement above.] Students wishing to transfer any courses into the News Editorial sequence must obtain faculty consent prior to admission to the major.

MINORS

The School of Communication offers the following minors:

1. Interpersonal Communication

   (21 hours)

   COM 3311, SPC 3301, and 15 credit hours chosen from:

   COM 3011, SPC 3425, SPC 4330, SPC 4350, SPC 4540, COM 4461 or COM 4462.
Bachelor of Arts: Interpersonal Communication

Degree Requirements
1. See Undergraduate Degree Requirements
2. See special college requirements.
3. Required Courses (30 hours)
   - COM 3011 Communication and Human Relations 3 hours
   - COM 3311 Communication Research Methods 3 hours
   - ENC 3210 Business Report Writing 3 hours
   - SPC 3301 Interpersonal Communication 3 hours
   - SPC 3425 Group Interaction and Decision Making 3 hours
   - SPC 3601 Advanced Public Speaking or 3 hours
   - SPC 3511 Argumentation and Debate or 3 hours
   - SPC 4330 Nonverbal Communication 3 hours
   - SPC 4350 Studies in Listening 3 hours
   - SPC 4540 Attitudes and Communication 3 hours
   - SPC 4440 Group Dynamics 3 hours

4. Restricted Electives (See Area of Specialization) (6 hours)
   - Six credit hours in the School of Communication
   - A minimum of 9 upper division credit hours in one department outside the School of Communication.

5. Electives (9 hours)
   - A maximum of 3 credit hours of internship may be earned in one semester. A total of 6 may be earned within the 120 credit hours required for graduation. Students should check with their advisor for prerequisites and other requirements.

Bachelor of Arts: Journalism

Admission Requirements
1. An overall minimum 2.25/4.00 grade point average based on a minimum of 30 credit hours of college work. Note: meeting the minimum GPA does not guarantee admission since students are admitted on a space available basis. THE GPA CUT OFF FOR THE 1995-1996 YEAR WAS 2.75.
2. Passing a grammar examination involving basic proficiency in grammar, punctuation, and word usage. Testing is conducted prior to and throughout each semester, and remedial options are provided.
3. Passing a Keyboard Proficiency Test (20 wpm). The test may be taken ONLY three times. Completion of a basic college keyboard or typing course with a grade of "C" will satisfy the requirement.
4. See Undergraduate Degree Requirements
5. Required Courses. Students must select and complete one of the areas of specialization listed below.
6. Restricted Electives (See Area of Specialization)
7. Electives (See Area of Specialization)

AREAS OF SPECIALIZATION
1. Required Courses: News-Editorial Track (30 hours)
   - JOU 3004 History of American Journalism 3 hours
   - JOU 3100* News Reporting 3 hours
   - JOU 3101* Advanced News Reporting 3 hours
   - JOU 3200* Editing I 3 hours
   - JOU 3201* Editing II 3 hours
### Bachelor of Arts: Organizational Communication

**Degree Requirements**

1. See Undergraduate Degree Requirements
2. See special college and/or school requirements.

#### Required Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM 3011</td>
<td>Communication and Human Relations</td>
<td>3</td>
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<tr>
<td>COM 3110</td>
<td>Business and Professional Speaking</td>
<td>3</td>
</tr>
<tr>
<td>COM 3120</td>
<td>Organizational Communication</td>
<td>3</td>
</tr>
<tr>
<td>COM 3311</td>
<td>Communication Research Methods</td>
<td>3</td>
</tr>
<tr>
<td>COM 4461</td>
<td>Intercultural Communication</td>
<td>3</td>
</tr>
<tr>
<td>COM 4941</td>
<td>Internship</td>
<td>3</td>
</tr>
<tr>
<td>ENC 3210</td>
<td>Business Report Writing</td>
<td>3</td>
</tr>
<tr>
<td>SPC 3425</td>
<td>Group Interaction and Decision Making</td>
<td>3</td>
</tr>
<tr>
<td>SPC 3445</td>
<td>Leadership</td>
<td>3</td>
</tr>
</tbody>
</table>

**Bachelor of Arts: Organizational Communication**

Total Semester Hours Required 120 hours
SPC 4440 Group Dynamics 3 hours

4. Restricted Electives
Six (6) credit hours in the School of Communication (6 hours)

5. Electives
A minimum of 9 upper-division credit hours in one department outside the School of Communication. (9 hours)

Total Semester Hours Required 120 hours

Bachelor of Arts: Radio-Television

Admission Requirements
1. An overall minimum 2.25/4.00 grade point average based on a minimum of 30 credit hours of college work. Note: meeting the minimum GPA does not guarantee admission since students are admitted on a space available basis. THE GPA CUT OFF FOR THE 1995-1996 YEAR WAS 2.75.
2. Passing a basic grammar examination involving proficiency in grammar, punctuation, and word usage. Testing is conducted prior to and throughout each semester and remedial options are provided.
3. Passing a Keyboard Proficiency Test (20 wpm). The test may be taken ONLY three times. Completion of a basic college keyboard or typing course with a grade of "C" will satisfy the requirement.

Degree Requirements
1. See Undergraduate Degree Requirements
2. See Special college and/or School requirements.
3. Required Courses (27 hours)
   RTV 3000 Foundations of Broadcasting 3 hours
   RTV 3200 Broadcast Techniques 4 hours
   RTV 3210 Radio Production 4 hours
   or
   RTV 3260 Electronic Field Production 4 hours
   RTV 3300* Broadcast Newswriting 3 hours
   RTV 3501* Broadcast Copy writing 3 hours
   RTV 4403 Radio/Television and Society 3 hours
   RTV 4700 Broadcast Regulations 3 hours
   RTV 4800 Broadcast Management 3 hours
4. Restricted Electives
Six credit hours in the School of Communication (6 hours)
5. Electives
Total Semester Hours Required 120 hours

Students are encouraged to work with WUCF radio to gain practical experience. In addition, students may complete an internship off campus in a professional broadcast, production, or corporate operation. A maximum of 3 credit hours of internship may be earned in one semester. A total of 6 credit hours of internship may be earned within the 120 credit hours required for graduation. A maximum of 3 credit hours of internship may be counted as a Restricted Elective. Summer internships are available during "C" term only. Students should consult with their advisor for prerequisites and other requirements.

*Prerequisite Grammar Proficiency Examination and Keyboard Proficiency Test required.

Bachelor of Arts: Motion Picture Technology

Limited Access
Access to this program is based on a selective set of requirements which differ from other School of Communication majors. Students meeting the minimum requirements for admission will be admitted on a space available basis. The basic requirements for admission consideration to the Motion Picture Technology program are:
1. An overall 3.0 grade point average based on a minimum of 45 credit hours of college work
2. Submission of a written essay
3. A portfolio or additional information
4. A maximum of three courses in film completed prior to acceptance into the program may be counted toward the major.

NOTE: Applications are accepted ONLY once per year. See paragraph on School Admission Application.

Graduation Requirements
Students will be required to maintain an overall 3.0 GPA after acceptance into the Motion Picture Technology program.

Degree Requirements
1. University graduation requirements
2. Special College and/or School requirements
3. Required Courses: Students must select and complete one of the areas of specialization listed below.
4. Restricted Electives (See Area of Specialization)
5. Electives

Areas of Specialization

General Production/Screenwriting

1. Required Courses: (29 hours)
   - FIL 3100 Introduction to Scriptwriting 3 hours
   - FIL 3200 Introduction to Film Production 3 hours
   - FIL 3300 Documentary Film 3 hours
   - FIL 3400 History of the Motion Picture 3 hours
   - FIL 3922 Film Colloquium 2 hours
   - FIL 3503 Film Theory 3 hours
   - FIL 4102 Intermediate Screenwriting 3 hours
   - FIL 4201 Intermediate Film Production 3 hours
   - FIL 4208 Film Director 3 hours
   - FIL 4601 Production Management 3 hours

2. Restricted electives: (6 hours)
   - Six credit hours FIL prefix courses. Students who elect this track must declare a major in either production or screenwriting prior to their senior year and take six hours of either the advanced production or screenwriting courses as follows:
     - FIL 4202 Advanced Film Production 3 hours
     - FIL 4203 Film Workshop or Advanced Screen Writing 3 hours
     - FIL 4103 Advanced Screen Writing or Screenwriting Workshop 3 hours

Total Semester Hours Required 120 hours

Animation

1. Required Courses: Animation (28 hours)
   - FIL 3100 Introduction to Scriptwriting 3 hours
   - FIL 3200 Introduction to Film Production 3 hours
   - FIL 4230 Intermediate Cel Animation 3 hours
   - FIL 3242 Introduction to Cel Animation 3 hours
   - FIL 3400 History of the Motion Picture 3 hours
   - FIL 3410 History of Animated Film 3 hours
   - FIL 3922 Film Colloquium 2 hours
   - FIL 4201 Intermediate Film Production 3 hours
   - FIL 4231 Intro to Computer Animation 3 hours
   - FIL 4932 Intermediate Computer Animation 3 hours

2. Restricted Electives (6 hours)
   - Advanced Sequence Electives: Six credit hours FIL prefix courses to be chosen from advanced cel animation or computer animation courses. Student must see advisor to choose specialization.

Total Semester Hours Required 120 hours
A maximum of three credit hours of internship may be earned in one semester. A total of six credit hours may be earned within the 120 credit hours required for graduation. Check with your advisor for prerequisites and other requirements.

DEPARTMENT OF COMPUTER SCIENCE

Chair: T. Frederick, CS 201, Phone (407) 823-2341
Faculty: Bassiouni, Brigham, Deo, Dutton, Frederick, Gerber, Gomez, Goudreau, Guha, Hua, Hughes, Lang, Leeson, Lobo, Moshell, Mukherjee, Orooji, Parsons, Rogers, Rolland, Shah, Vemulapati, Workman.

The Department of Computer Science offers courses and programs leading to Bachelor of Science, Master of Science (see Graduate Catalog), and Doctor of Philosophy (see Graduate Catalog) degrees in Computer Science. In addition, the Department offers a minor in Computer Science and a minor in Applied Computer Science.

The department strives to meet the computer personnel needs of the scientific, business, and industrial community by producing graduates with a broad base of formal courses as well as a concentration in selected areas. In addition, the Department conducts research in programming systems/languages, information systems, computer architecture, computational methods, in addition to other areas.

The Department requires that students initiate a request for a review of graduation requirements at the beginning of the anticipated term of graduation. Failure to file the request may delay graduation.

Accreditation

The B.S. program in computer science is accredited by the Computer Science Accreditation Commission (CSAC) of the Computing Sciences Accreditation Board (CSAB), a specialized accrediting body recognized by the Council on Postsecondary Accrediting (COPA) and the U.S. Department of Education.

Computer Facilities

The Department of Computer Science provides computer laboratories for our faculty and students, for a variety of courses and research projects. The computing facilities are divided into two areas, teaching and research.

The department's infrastructure computing facilities are centered around several UNIX based servers, including a Sun UltraSparc Enterprise 3000 pddal processor server, a UltraSparc Enterprise 2 Server and an NT based Dual Pentium server. These servers support a network of Sun SPARC stations, 486 and Pentium based PCs, and Macintosh computers. All major systems run UNIX, X-Windows, NFS filesharing, and support a variety of programming languages such as Pascal, Ada, C, C++, Concurrent C, Lisp and Prolog. Off campus access is available through dialup modems configured with PPP for direct connection to the network. Graduate students and faculty are the primary users of departmental resources while the campus central computing facility provides computing resources for undergraduates.

Research Laboratories

The department offers several laboratories to support ongoing research in different areas. Each lab is equipped with advanced software and hardware systems configured to support each area of research.

The Center for Parallel Computation houses a DECmmp 12000 (MasPar MP-1) with 8,192 processors and a BBN Butterfly GP1000+ parallel computer with 128 processors and 256 Megabytes of shared memory. The new laboratory for undergraduate access to this state-of-the-art equipment provides six DECstation 5000's and six terminals, supported by a DECstation 5000/240 server.

The Architecture and VLSI Laboratory includes a Sun SPARCServer 690MP and a collection of Sun SPARCstations which access a repository of over one gigabyte of VLSI design software on a SPARCServer 690MP. The laboratory has the Berkeley Magic, Synopsys and Xilinx for VLSI layout, simulation tools for full custom design and ViewLogic/Lager tools for standard cell design. Students and researchers use these tools to design VLSI chips, which upon completion are fabricated by MOSIS.

The Computer Vision Laboratory centers around Sun Ultra 2 Creator and SPARCServer 670MP connected to a network of high-end Sun and Silicon Graphics workstations. A large amount of equipment is available to support the capture and manipulation of digital images,
including a laser printer, video digitizer boards, a real-time frame-grabber, a VCR, camcorder, and a digital video camera. A CRS-Plus five-degree-of-freedom robot arm is also available for machine vision experiments. Several software packages (e.g., Khoros, Matlab), and a library of range and intensity images are available to aid in research. In addition, facilities exist for controlling illumination conditions, such as light-source position.

The Artificial Intelligence Laboratory contains four SPARCstations, and three Symbolics 3653 LISP machines. Each platform supports some flavor of LISP; Allegro CL on the Suns, and Symbolics LISP on the Symbolics. LISP applications can be ported across platforms through the use of CLIM (Common LISP Interface Manager), which is available on each machine type. The lab is also equipped with a modest library of AI related journals, technical reports and books.

The Distributed Computing and Networking Laboratory consists of several heterogeneous machines including a SGI High Impact, SGI Indys, Sun SPARCstations, Macintosh and Pentium based computers. These machines are connected with a 10/100 Mb ethernet network to a Silicon Graphics Challenge S - server.

The Digital Media Laboratory consists of twenty NCR PC compatible machines connected to an NT based server. These machines along with Sun and SGI workstations provide a platform for the development and testing of digital media software. Additional facilities available through the IST and CREAT labs. IST includes an Evans and Sutherland ESIG 500 real time image generator, several Silicon Graphics Iris workstations, several Suns SPARCstations, and many Macintoshes and PCs. The CREAT lab includes 5 SGI Indy workstations running Alias/Wavefront 3D modeling and animation software.

A new lab has been formed to support research in software engineering. This lab currently contains an NT based server connected to a cluster of Digital PC machines. These machines are currently used for research in distance learning. The server includes software for object oriented programming, web authoring (e.g., Java) and GUI development.

Other Facilities
Other campus wide computing facilities available to students and faculty include a network of UNIX based IBM RS/6000 workstations, and several large clusters of Pentium class PCs interconnected via a Novell network. The campus network includes connections to the Central Florida Research Park and to the State Network. The latter affords access to supercomputer cycles on the Cray Y-MP at the Supercomputer Research Institute in Tallahassee. In addition, the campus is directly linked to the Internet via a T1, affording on-line access to the other computer systems around the world.

MINORS
The Department of Computer Science offers the following minors, each consisting of a minimum of 18 semester hours of computer science course work. A minimum grade of "C" is required in each course. At least nine hours must be completed from the courses taught by the Computer Science Department at UCF.

1. Minor in Applied Computer Science
   a. Required courses (7 hours): CGS 1060, COP 2500, COP 3210
   b. Restricted Electives: at least 5 hours from CDA 3100, CDA 3101, CDA 3102, CGS 3580, CGS 3581, CGS 3582, CGS 3516, CGS 3517, CGS 3518, COP 3701, COP 3703, COP 3702.
   c. Electives: Any 3000 (or higher) level course offered by the computer science department (exclusive of independent studies).

2. Minor in Computer Science
   a. Required courses (12 hours): COP 2500, COP 2501, COP 3530 and COT 3100
   b. Restricted Electives: at least 6 hours from CDA 3103 (Computer Organization), COP 3402 and any other regularly scheduled 4000-level (or higher) course offered by the computer science department.
Bachelor of Science: Computer Science

Degree Requirements

1. Any two science courses designed for science majors (other than Physics for Engineers and Scientists I and II). The list includes (but is not limited to) courses in Biology (such as BSC 2010, BSC 2011), Chemistry (such as CHM 2045, CHM 2046).

2. Two semesters of credit normally selected from foreign languages (or demonstrated proficiency). With prior department approval, cultural/multi-cultural or related courses may be used to satisfy this departmental requirement.

3. GPA Requirements
   a. A minimum GPA of 2.0 ("C") in all course work;
   b. A minimum grade of "C" in each required course (see Section 5 below);
   c. A minimum GPA of 2.5 in upper division required courses (these courses are listed in section 5.11 below). Only the highest grade for a course is used in determining this GPA requirement.

4. Departmental Residency Requirement: At least eighteen semester hours of regularly scheduled 4000/5000-level courses must be taken from the UCF Computer Science Department.

5. Required courses:
   I. Computer Science Core: (40 hours)
      a. Computer Science Courses:
         COP 2500  Computer Science I  3 hours
         COP 2501  Computer Science II  3 hours
         CDA 3103  Computer Organization  3 hours
         COP 3402  Computer Systems Concepts/Programming  3 hours
         COT 3100  Introduction to Discrete Structures  3 hours
         COP 3530  Computer Science III  3 hours
      b. Support Courses:
         MAC 2311  Calculus with Analytic Geometry I  4 hours
         MAC 2312  Calculus with Analytic Geometry II  4 hours
         STA 2023  Statistical Methods I  3 hours
         PHY 2048  Physics for Engineers & Scientists I  3 hours
         PHY 2048L Physics for Engineers & Scientists Lab I  1 hour
         PHY 2049  Physics for Engineers & Scientists II  3 hours
         PHY 2049L Physics for Engineers & Scientists Lab II  1 hour
         ENC 3241  Technical Report Writing  3 hours
   II. Upper Division Required Courses: (12 hours)
      CDA 4150  Introduction to Computer Architecture  3 hours
      COT 4210  Discrete Computational Structures  3 hours
      COP 4202  Programming Languages I  3 hours
      COP 4600  Introduction to Programming Systems  3 hours
   III. Restricted Electives (16 hours)
      a. Twelve hours of 4000/5000-level courses in computer science (with no more than three hours of independent studies).
      b. Four hours of mathematics and/or statistics, exclusive of independent studies.
         Course work must be selected from 4000/5000-level mathematics/statistics courses and the following: MAC 2313, MAP 3302, MAS 3105, and MAS 3106.

6. Electives
   Total Semester Hours Required  120 hours

Bachelor of Arts: Economics

Contact Person: J. Boyte, FA 202, Phone (407) 823-2492

The Bachelor of Arts in Economics is designed to provide students with a liberal arts background to serve as a strong foundation for future graduate studies or as training for a career in politics, teaching, research, social services and a variety of other areas. Successful completion of this program leads to the Bachelor of Arts degree with a major in Economics.

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Degree Requirements
1. See Undergraduate Degree Requirements
2. See special college and/or department requirements
3. Required courses:
   - ECO 2013 Principles of Economics I (3 hours)
   - ECO 2023 Principles of Economics II (3 hours)
   - ECO 3101 Intermediate Price Theory (3 hours)
   - ECO 3203 Aggregate Economic Conditions Analysis (3 hours)
   - ECO 3401 Quantitative Business Tools I (3 hours)
4. Restricted Electives
   a. Select Six Courses:
      - ECO 3233
      - ECO 3411
      - ECO 3622
      - ECO 3703
      - ECO 3723
      - ECO 4303
      - ECO 4412
      - ECO 4504
      - ECP 3004
      - ECP 3203
      - ECP 3433
      - ECP 4403
      - ECP 4603
      - ECP 4703
      - ECS 4003
      - ECS 4013
      - ECS 4303
   b. Twenty-seven hours of additional courses, including the completion of a minor from one of the following areas: Computer Science, Mathematics, Statistics, or the Social and Behavioral Sciences.
5. Electives

DEPARTMENT OF ENGLISH
Chair: J. Schell, FA 301, Phone (407) 823-2212
Faculty: Adicks, Barnes, Bartkevicius, Bell, Brain, Donnelly, Flammia, Gillette, Greenberg, Hemschemeyer, Hubbard, Jaffe, Jones, Lilley, Omans, Puccio, Rushin, Schifflorost, Seidel, Smith, Sommer, Stap, Wyatt

The Department of English is responsible for the effective teaching of language and literature in English, including World Literature, and creative, expository, and technical writing. Students may concentrate in creative writing, technical writing, or literature. The Department serves the broad needs of the University with course offerings in writing and literature for students from other departments. The department has a Technical Documentation Writing Lab and also publishes The Florida Review and The Cypress Dome.

An Honors in English program provides an enriched course of study for exceptional students, leading to graduation with honors. Program description follows concentration degree plans.

Foreign Language proficiency equivalent to three semesters is required of all majors. Only courses with a grade of "C" or better may be applied to the English Major and Minor. Transfer students are expected to complete at UCF a majority of their hours in an English major or minor.

MINOR
The Department of English offers the following minors:
Creative Writing Minor: 21 total semester hours, 9 hours from the following: CRW 3003, CRW 2100 or CRW 2300 or CRW 3410, CRW 4122 or CRW 4320 or CRW 4420.
12 hours from CRW 3310, CRW 4114, CRW 5932, and any of the above courses not already used.

**Literature Minor:** 21 semester hours with no fewer than 12 completed at UCF. Requirements: 12 semester hours selected from ENL 2012, ENL 2021, ENL 4373, AML 3031, AML 3051, LIT 2110, LIT 2120. 9 additional semester hours of English courses chosen by the student and advisor.

**Linguistics Minor:** 18 semester hours. Required courses: LIN 3010, LIN 4100, LIN 4680, 9 remaining hours to be chosen from LIN 4202, LIN 4612, LIN 4601, LIN 4680, LIN 5137, ANT 3610, PHI 4220, or any course approved by the Linguistics Committee.

**Technical Writing and Editing Minor:** 22 semester hours, as follows: ENC 2290, 3211, 3311, 4215, 4218, 4293, 4294, 4295. Students completing the minor may intern with a Central Florida corporation.

**Writing Minor:** 18 semester hours from any 3000 or 4000 level ENC or CRW classes for which the student has met the prerequisites, including CRW 2100, CRW 2300, CRW 3003, CRW 3310, CRW 4122, CRW 4123, CRW 4320, ENC 3210, ENC 3211, ENC 3241, ENC 3283, ENC 3310, ENC 3311, ENC 3942, and ENC 4341.

**Bachelor of Arts: English**

1. See Undergraduate Degree Requirements
2. See special College and/or department requirements
3. Required courses - Foundation (for all concentrations) (6 hours)
   Choose two of the following three:
   - LIT 3000 Introduction to Literature 3 hours
   - CRW 3003 Creative Writing for English Majors 3 hours
   - ENC 3211 Theory and Practice of Technical Writing 3 hours

   Choose three of the following four: (9 hours)
   - ENL 2012 English Literature I 3 hours
   - ENL 2021 English Literature II 3 hours
   - AML 3031 American Literature I 3 hours
   - AML 3051 American Literature II 3 hours

4. Restricted Electives (varies with concentration)
   (See Literature, Creative Writing, and Technical Writing concentrations below.)
5. Electives (varies with concentration)
   To be selected primarily from upper level courses with advisor’s approval.
   **Total Semester Hours Required** 120 hours

**CONCENTRATIONS**

1. **Literature**
   **Required** (9 hours)
   - AML 3031, AML 3051, ENL 2012, or ENL 2021 not completed in core 3 hours
   - ENL 4311 Chaucer or
   - ENL 4341 Milton or
   - ENL 4330 Shakespeare
   - LIN 3010 Principles of Linguistics or
   - LIN 4100 History of the English Language or
   - LIN 4680 Modern English Grammar

   **Electives** (12 hours)
   Choose 12 hours from the 3000 or 4000 level courses offered under AML, ENL, and LIT prefixes.

2. **Creative Writing**
   **Choose Two** (6 hours)
   - CRW 3100 Theory and Practice of Fiction Writing 3 hours
   - CRW 3300 Theory and Practice of Poetry Writing 3 hours
   - ENC 3310 Magazine Writing I 3 hours
   - CRW 3410 Writing Scripts 3 hours
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRW 3211</td>
<td>Creative Nonfiction Writing</td>
<td>3 hours</td>
</tr>
<tr>
<td>Choose Two</td>
<td></td>
<td>(6 hours)</td>
</tr>
<tr>
<td>CRW 4122</td>
<td>Advanced Fiction Writing Workshop</td>
<td>3 hours</td>
</tr>
<tr>
<td>CRW 4320</td>
<td>Advanced Poetry Writing Workshop</td>
<td>3 hours</td>
</tr>
<tr>
<td>CRW 4420</td>
<td>Advanced Scriptwriting Workshop</td>
<td>3 hours</td>
</tr>
<tr>
<td>CRW 4XXX</td>
<td>Advanced Creative Nonfiction Writing</td>
<td>3 hours</td>
</tr>
<tr>
<td>ENC 4341</td>
<td>Magazine Writing II</td>
<td>3 hours</td>
</tr>
<tr>
<td>Choose One</td>
<td></td>
<td>(3 hours)</td>
</tr>
<tr>
<td>CRW 3110</td>
<td>Structure of Verse</td>
<td>3 hours</td>
</tr>
<tr>
<td>CRW 4114</td>
<td>History of Prose Style</td>
<td>3 hours</td>
</tr>
<tr>
<td>CRW 3540</td>
<td>Literary Magazines</td>
<td>3 hours</td>
</tr>
<tr>
<td>Choose Two</td>
<td></td>
<td>(6 hours)</td>
</tr>
<tr>
<td>ENL 4311</td>
<td>Chaucer</td>
<td>3 hours</td>
</tr>
<tr>
<td>ENL 4330</td>
<td>Shakespeare</td>
<td>3 hours</td>
</tr>
<tr>
<td>ENL 4341</td>
<td>Milton and His Age</td>
<td>3 hours</td>
</tr>
<tr>
<td>LIN 3010</td>
<td>Principles of Linguistics</td>
<td>3 hours</td>
</tr>
<tr>
<td>LIN 4100</td>
<td>History of the English Language</td>
<td>3 hours</td>
</tr>
</tbody>
</table>

3. Technical Writing

Required (Basic) (4 hours)
- ENC 2290 Careers in Writing 1 hour
- ENC 3311 Advanced Expository Writing 3 hours

Required (Advanced) (24 hours)
- ENC 4293 Technical Documentaion I 3 hours
- ENC 4294 Technical Documentaion II 3 hours
- ENC 4295 Technical Documentaion III 3 hours
- ENC 4215 Techniques of Technical Publication 3 hours
- LIT 4433 Survey of Technical and Scientific Literature 3 hours
- ENC 4218 Graphics Capabilities 3 hours
- ENC 4280 Technical Vocabulary 3 hours
- ENC 3283 Science and the Lay Reader 3 hours

Optional (0-3 hours)
- ENC 4941 Technical Writing and Editing Internship 3 hours

Honors in English Requirements:
1) Application and admission through the English Honors Coordinator.
2) Fulfill University requirements for Honors in the Major,
3) Grade of "B" or better in Honors Seminar (3 hours), Bibliography and Research Methods (1 hour), one 5000 level English elective (3 hours), and Director Readings (3 hours). (Honors Seminar and Directed Readings substitute for one restricted elective and one English core course);
4) Successful completion and oral defense of honors thesis.

DEPARTMENT OF FOREIGN LANGUAGES AND LITERATURES

Chair: J. B. Fernández, FA 201, Phone (407) 823-2472
Faculty: Barsch, Cervone, Decker, Del-Rio, DiPierro, Fernández, Leticee, Micarelli, Payas, Redmon, Stebbins, Taylor

Language studies in the College of Arts and Sciences provide instruction in Arabic, Chinese, French, German, Hebrew, Italian, Japanese, Latin, Portuguese, Russian, and Spanish, with majors in French, Spanish, and a combination of two languages. These programs are designed to meet the needs of students who desire competency in a language and expanded understanding of a foreign culture and literature. Students enrolled in the 1000-level language sequence are required to utilize the Foreign Language Media Center for at least one hour a week.

Students wishing to major in a foreign language must meet all the requirements for graduation as set forth by the University, the College of Arts and Sciences, and by the Department of Foreign Languages and Literatures. They must complete 36 semester hours in the single language major or 39 semester hours in the combination major at the 3000 level or above.

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ADVISEMENT: Because of the various options open to language majors, it is obligatory that they have an advisor. Students must contact the Department of Foreign Languages & Literatures to be assigned an advisor, since students must meet with their advisor before registering for courses in their major. Furthermore, class schedules must be approved by their advisor each semester. For continuing students, the meeting with an advisor must take place in the semester preceding the semester of registration. Failure to fulfill this obligation could result in delaying graduation.

PLACEMENT: Normal placement is as follows: Four years of one high school language would place the student, at the University level, in the first semester of the third year; three years, in the second semester of the second year; two years, in the first semester of the second year; one year, in the second semester of the first year.

A native or near-native speaker language major must substitute alternate upper-division Spanish and French courses for the Spanish 3241 and French 3244 conversation courses. Also, a native or near-native French speaker must substitute an alternate upper-division French course for FRE 4780 (French Phonetics and Diction). In cases where native speakers have received advanced education abroad, they will not be permitted to take the composition course (3420) for the fulfillment of their major requirements but must substitute a literature course chosen in consultation with an advisor in the department.

CREDIT BY EXAMINATION: Language credit will not be given in courses lower in level than those in which students are presently enrolled. Native speakers will be allowed Credit by Examination in literature courses only.

MINORS: The Department of Foreign Languages offers minors in French, German, Italian, Russian, or Spanish. Required courses: 18 semester hours at the 3000-level or above in one language, including the 3000-level conversation and composition courses. A native or near-native speaker must substitute an alternate upper-division course for the conversation course.

PROFICIENCY: In colleges or departments where a Foreign Language Proficiency Requirement exists, it can be met by passing an appropriate portion of the Proficiency Exam, or by completing the appropriate course work. See the section entitled College of Arts & Sciences for a list of departmental language proficiency requirements.

Bachelor of Arts: French

Degree Requirements:

1. See Undergraduate Degree Requirements

2. See special college and/or department requirements

A student may receive a Bachelor of Arts degree in French by completing with a grade of "C" or better, 36 credits in the foreign language major. These credits must be in courses at the 3000 level or above, with at least two French courses at the 4000 level. Not more than six hours out of the 36 required may be taken in Foreign Language courses not taught in French. Grades of "D" or below may not be counted toward the major.

3. Required courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>FRE 3244</td>
<td>Conversation</td>
<td>3</td>
</tr>
<tr>
<td>FRE 3420</td>
<td>Composition</td>
<td>3</td>
</tr>
<tr>
<td>FRW 3100 and 3101</td>
<td>Survey of French Literature</td>
<td>6</td>
</tr>
<tr>
<td>FRE 4780</td>
<td>French Phonetics and Diction</td>
<td>3</td>
</tr>
<tr>
<td>FOL 3730</td>
<td>Romance Philology</td>
<td>3</td>
</tr>
</tbody>
</table>

4. Restricted Electives

| Electives                                      | Hours |
|                                               |       |
| Foreign Language Electives (at least two courses in French literature beyond the survey level) | 12     |

Total Semester Hours Required: 120

Bachelor of Arts: Spanish

Degree Requirements:

1. See Undergraduate Degree Requirements

2. See special college and/or department requirements

A student may receive a Bachelor of Arts degree in Spanish by completing with a grade of "C" or better, 36 credits in the foreign language major. These credits must be in courses at the 3000 level or above, with at least two Spanish courses at the 4000 level. Not more than
six hours out of the 36 required may be taken in Foreign Language courses not taught in Spanish. Grades of "D" or below may not be counted toward the major.

3. Required (12 hours)
- SPN 3241 or FRE 3244 or GER 3240 Conversation 3 hours
- SPN 3420 or FRE 3420 or GER 3420 Composition 3 hours
- SPW 3100 and 3101 Survey of Spanish Literature or or 6 hours
- SPW 3130 and 3131 Latin-American Literature

4. Linguistics Electives — Select two of the following (6 hours)
- FOL 3730 Romance Philology 3 hours
- SPN 4801 Spanish Morphosyntax 3 hours
- SPN 4800 Spanish American Syntax 3 hours
- SPN 4780 Spanish Phonetics 3 hours

5. Restricted Electives (18 hours)
Foreign Language Electives (at least two courses in literature beyond the survey level)
Total Semester Hours Required 120 hours

Bachelor of Arts: Foreign Language Combination

Degree Requirements
1. See Undergraduate Degree Requirements
2. See special college and/or department requirements.

A student may receive a Bachelor of Arts degree, with a major in a Foreign Language Combination, by completing with a grade of "C" or better, 24 credits in a first language and 15 credits in a second. These credits must be in courses at the 3000 level or above, with at least two courses at the 4000 level. Language combinations may consist of French, German or Spanish as a first language and any of those three as a second language, as well as Italian or Russian.

In the first language, the following courses must be taken as part of the required 24 credits:

3. Required — language one (12 hours)
- SPN 3241 or FRE 3244 or GER 3240 Conversation 3 hours
- SPN 3420 or FRE 3420 or GER 3420 Composition 3 hours
- SPW 3100 and 3101 Survey of Spanish Literature* or or 6 hours
- SPW 3130 and 3131 Latin American Literature *
- or
- FRW 3100 and 3101 Survey of French Literature or or
- GEW 3100 and 3101 Survey of German Literature

4. Linguistics Electives — Select one of the following (3 hours)
- FRE 4780 French Phonetics and Diction 3 hours
- FOL 3730 Romance Philology 3 hours
- GER 3780 German Phonetics and Diction 3 hours
- SPN 4801 Spanish Morphosyntax 3 hours
- SPN 4800 Spanish American Syntax 3 hours
- SPN 4780 Spanish Phonetics 3 hours

5. Restricted Language Electives — language one, chosen with advisor (9 hours)

6. Required — language two (6 hours)
- SPN 3241 or FRE 3244 or GER 3240 Conversation 3 hours
- SPN 3420 or FRE 3420 Composition 3 hours
- GER 3420 or ITA 3420 or RUS 3420 Conversation 3 hours
- GER 3420 or ITA 3420 or RUS 3420 Composition 3 hours

7. Restricted Language Electives — language two, chosen with advisor (9 hours)
Total Semester Hours Required 120 hours

* If Spanish is the first language, two semesters of the Survey of Spanish Literature (SPW 3100 and 3101) or two semesters of the Survey of Latin American Literature (SPW 3130 and 3131) must be taken.
SUMMER STUDY ABROAD PROGRAMS
The Department of Foreign Languages and Literatures has been offering a Summer Study program in Spain since 1972, in Italy since 1975, in Canada since 1989, and in Germany and Russia since 1991. These programs are approved by the State of Florida Board of Regents and are expected to be offered annually. Credit courses are available in these programs in the language, (all levels), art, and civilization of Québec, Germany, Russia, Italy, or Spain. These programs are open to all students of the State University System of Florida and to others as well.

Jonquière, Québec, Canada
Jonquière is a modern city of 60,000 in the picturesque Lac Saint-Jean region, about 150 miles north of Québec City. Students live with French-speaking families, receive 6 hours of classroom instruction in French each weekday, and pledge to use only French at all times during the program. Participants earn 8 credits. Educational weekend excursions and a number of sociocultural activities are included. The program takes place during Summer A.

Jena, Germany
Courses in German language and civilization are offered at all levels. Students are housed at the Jena University campus and have an opportunity to visit other cities in Germany.

Urbino, Italy
The city of Urbino, on the slopes of the Eastern Appennines, is one of the major centers for the study of Renaissance art and architecture. The modern university sponsors a number of conventions of learned societies and cultural events in the summer. Courses in Renaissance art and modern Italian letters are given in English; language courses are conducted in Italian.

St. Petersburg, Russia
This program is offered in cooperation with the Hertzen Pedagogical Institute of St. Petersburg. Courses in Russian art, language and civilization are offered at all levels. Visits to points of historical and cultural interest in St. Petersburg and Moscow are made.

Madrid, Spain
This program is intended for students who wish to begin or continue their study of Spanish language and civilization. Language and literature courses will be offered from the beginning level through the advanced. In addition, students will have an opportunity to visit major places of cultural and artistic interest in Spain.

ENGLISH FOR SPEAKERS OF OTHER LANGUAGES (ESOL)
The Department of Foreign Languages and Literatures offers three (3) courses in ESOL and has received State approval of an ESOL Endorsement Program.

DEPARTMENT OF HISTORY
Chair: Richard C. Crepeau, FA 544, Phone (407) 823-2224
Faculty: Adams, Austin, Beiler, Colbourn, Evans, Fernandez, Fetscher, Frederickson, Greenhaw, Kallina, Leckie, Pauley, Shofner, Velez, Woelk, Womble, Zhang

Students majoring in history must complete a minimum of thirty-six (36) semester hours in history courses. Twenty-four (24) of these hours must be at the upper-division level, and of these hours a student must select six (6) upper-division hours from three geographic regions. The geographic areas are: 1) Asian, African, and Middle Eastern; 2) British and European; 3) Latin American; 4) U.S. and Canadian. A grade of "D" or below may not be counted toward the major.

The Foreign Language Requirement for the B.A. in History is identical to that of the University, one year. However the History Department strongly encourages its majors who are even contemplating going on to graduate school to complete two years of a foreign language, preferably in a language that would be functional in their areas of historical interest. The History Department will provide each of these students with the opportunity to take the language proficiency examination which is given to history graduate students, and will certify their proficiency.
History majors who are interested in a pre-law program should work closely with their advisors in selecting major courses and electives which will best prepare them for law school. These students should use their electives for additional courses in history as well as English, speech, and philosophy. Such a course of study will prepare them for success in law school and will concomitantly provide a broad liberal education.

The History Department encourages its majors, especially those in American History, to develop their statistical and computer skills by completion of appropriate course work in the Department of Statistics.

The Department participates in the programs in Women's Studies, American Studies, Afro-American Studies, Canadian Studies, Latin American and Iberian Area Studies, and Russian Area Studies.

MINOR

The Department of History offers a minor consisting of a minimum of eighteen (18) hours of history courses, with at least fifteen (15) hours taken at the upper division (3000-4000) level. A grade of "D" or below will not be counted toward the minor.

Bachelor of Arts: History

Degree Requirements

1. See Undergraduate Degree Requirements

2. See special college and/or department requirements

3. Required Courses

   AMH 2010  US History: 1492-1877
   AMH 2020  US History: 1877-Present
   EUH 2000  Western Civilization I
   EUH 2001  Western Civilization II

   (12 hours)

   3 hours

4. Restricted Upper Division Electives

   Six upper division hours (for a total of 18 hours) of approved courses
   must be taken within three of the following four geographic regions.

      1) Asian, African, and Middle Eastern
      2) British and European
      3) Latin American
      4) U.S. and Canadian

   (24 hours)

5. Electives

   To be selected with approval of the student's advisor

   Total Semester Hours Required

   120 hours

AREA OF SPECIALIZATION

1. Russian Area Studies. The History Department participates in the Russian Area Studies Program. For information consult with Dr. John Evans or Dr. Richard Crepeau.

2. Latin American Area Studies. The History Department participates in the Latin American and Iberian Area Studies Program. For information consult with Dr. Jose B. Fernandez.

JUDAIC STUDIES PROGRAM

Program Director: Professor Moshe Pell, FA 521, Phone (407) 823-5039 or 823-2251

The Interdisciplinary Program in Judaic Studies offers both a Minor and a Certificate (but not a major). The Program cooperates with the departments of English, Foreign Languages, History, Philosophy, Political Sciences, and Sociology/Anthropology, and with the Liberal Studies and Women's Studies Programs.

The program offers instruction, conducts research, and disseminates knowledge in the civilization of the Jewish people from Biblical times to the present day in the major dimensions of its creativity: literature, language, religion, philosophy, law, and social, political and economic organization. Because the roots of western culture and civilization and major world religions lie in ancient Jewish thought and practice as manifested in the Hebrew Bible and subsequent writings, Jewish Studies form an essential component of the university's curricula.
The program is designed to serve students pursuing careers in general or Jewish education, in international and Middle-Eastern affairs, in languages or liberal arts, in the ministry or rabbinate, and in the community at large.

The Minor requires the completion of 18 upper-division credit hours in Jewish History, such as JST 3401 and 3402 (The Jewish People I & II), JST 3550 (Introduction of Modernism into Judaism), JST 3930 (History of the Holocaust), literature, such as HBT 3220 (Israeli Short Story in Translation), JST 3100 (The Hebrew Creative Mind), JST 3751 (Literature of the Holocaust), LIT 4374 (Literature of the Bible), the Hebrew Bible JST 3XXX (Introduction to Hebrew Scriptures), and culture, such as JST 3820 (Modern Hebrew Culture), and JST 3810 (the Jewish National Movement). In addition, students must complete the lower-division one year of Introductory Hebrew (HBR 1120, 1121). Hebrew language courses satisfy foreign language requirements. The program also offers a certificate in Judaic Studies for students completing 15 credits (five courses) in Judaic Studies.

See listings and courses under HBR, HBT, HMW, JST, and REL, and cross-listed courses in the Department of Foreign Languages.

LATIN AMERICAN AND IBERIAN AREA STUDIES PROGRAM

The minor in Latin American Area Studies offers a broad interdisciplinary approach to the understanding of Latin America, the Iberian Peninsula and their peoples. The minor requires the completion of 18 semester hours selected from courses listed in the Foundation Areas. In addition, students must complete the introductory language sequence (or its equivalent) in Spanish. A minimum grade of "C" is required for all minor courses and final approval of the minor is contingent upon completion of a thesis paper. For information contact Professor Jose B. Fernandez, FA 505, (407) 823-5389.

FOUNDATIONS AREAS

Anthropology

ANT 3328 Mayan Archaeology 3 hours
ANT 3322 Peoples and Culture of Latin America 3 hours
ANT 3163 Mesoamerican Archaeology 3 hours
ANT 4124 Seminar in Laboratory Analysis 3 hours
ANT 4180 Advanced Archaeological Fieldwork 9 hours

Art

ARH 4655 Meso American Art 3 hours
ARH 4690 Mexican Art Fieldwork 1 hour

Economics

ECO 2013 Principles of Economics I 3 hours
ECO 3703 International Economics 3 hours

Foreign Languages

SPN 2230 Intermediate Spanish Language and Civilization I 3 hours
SPN 2231 Intermediate Spanish Language and Civilization II 3 hours

Any upper division Spanish Language, Literature, Business or Civilization Course.

History

EUH 4932 Modern Spain 3 hours
LAH 3230 Latin American History I 3 hours
LAH 3200 Latin American History II 3 hours
LAH 3400 History of Mexico and Central America 3 hours
LAH 3470 History of the Caribbean 3 hours

Political Science

CPO 4303 Comparative Latin American Politics 3 hours
INR 4243 International Politics of Latin America 3 hours
CPO 3034 Politics of Developing Areas 3 hours

NOTE: In addition to the courses listed in the Foundation Areas, Independent Study, Special Topics and Study Abroad courses offered through the College of Arts and Sciences can be applied to the Minor upon approval by the Program Director.
LIBERAL STUDIES PROGRAM
Program Director: TBA
Academic Advisors: David Jordan, Dennis R. Kamrad, Judy Monroe, FA 202, Phone (407) 823-0144.
The Liberal Studies Program offers students the opportunity to pursue interdisciplinary studies through two different programs of study, the Liberal Arts Track and the General Studies Track.

The Liberal Arts Track

Purpose
The Liberal Arts Track is a Bachelor of Arts degree program available to students seeking an individualized, interdisciplinary, non-traditional major within the College of Arts and Sciences.

Degree Requirements
1. See Undergraduate Degree Requirements
2. See Special College Requirements
3. Foreign Language — The B.A. requires 2 semesters foreign language proficiency.
4. Required Courses
   Students must complete a minimum of 45 semester hours and maintain a grade point average of 2.5 in all Liberal Arts Track courses.
   A. Students will be required to take an approved course in ethics and an approved course in critical thinking.
   B. Students must complete either a minor from those offered at UCF, or an approved individually designed minor program of study, for a minimum of 18 hours.
5. Concentrations - select one option
   A. Students may choose to complete a second minor from those offered at UCF. Students must complete all other requirements
   B. Students must complete twelve hours of approved courses within each of two of the following areas:
      Fine Arts
      Natural Sciences
      Social Sciences/Communication
      Letters/Humanities
   C. The Liberal Studies Steering Committee may approve an individually designed curriculum developed by a student and his/her advisor.
6. Thesis
   Students must conclude their program with an Undergraduate Thesis (IDS 4970), or an undergraduate capstone seminar.
Total Semester Hours Required 120 hours

The General Studies Track

Purpose
The General Studies Track is a university-wide program leading to either the Bachelor of Arts or the Bachelor of Science in Liberal Studies, depending on the majority of course areas selected.
The program is administered through the College of Arts and Sciences and is designed for general studies education and academic flexibility. It recognizes that there are many combinations of courses which meet the needs of individual students.

Degree Requirements
1. See Undergraduate Degree Requirements
2. See Special College Requirements
3. Required Courses
   Students must complete three different subject area concentrations from those specified below. A minimum of 18 hours is required in each subject area concentration. Courses used to meet General Education requirements cannot be used in the subject areas and courses used in one of the subject areas must be satisfied by the completion of a minor from those offered at UCF. This includes minors from individual departments as well as
interdisciplinary minors. See "Academic Minors" in the Catalog for the complete list and the College or Department that awards each minor. Students are strongly encouraged to take upper level courses in each area. A minimum grade point average of 2.0 is required for all courses taken in each of the subject areas.

4. The B.S. requires one course with a multicultural dimension, or one course in college-level foreign language, or one semester of proficiency.

5. The B.A. requires 2 semesters or one year of foreign language proficiency.

Total Semester Hours Required 120 hours

**Course Subject Areas**

Students must complete three different course subject areas, including at least one minor, from those listed below:

1. **Arts**
   - 18 hours of approved courses in Art, Music, or Theatre, or a minor in Music, Theatre, Art History, Studio Art, or Community Arts.

2. **Behavioral and Social Sciences**
   - 18 hours of approved courses in Anthropology, Psychology, Sociology, Political Science, Economics, Social Work or a minor in Political Science, Psychology, Anthropology, or Sociology, or Multicultural Studies.

3. **Biological Sciences**
   - 18 hours of approved courses, or a minor in Biology.

4. **Business Administration**
   - 18 hours of approved courses in Business Administration, or a minor in Business Administration, Economics, Hospitality Management, or Management Information Systems.

5. **Communication**
   - 18 hours of approved courses in Communication, or a minor in Interpersonal Communication Organizational Communication, or Mass Communication.

6. **Computer Science**
   - 18 hours of approved courses, or a minor in General Computer Science or Applied Computer Science.

7. **Education**
   - Students who were previously majors in the College of Education may utilize a maximum of 18 hours of approved courses.

8. **Engineering**
   - 18 hours of approved courses, or a minor in Space Studies, Aerospace Studies, or Military Science.

9. **Health**
   - 18 hours of approved courses, or a minor in Health Sciences, Health Services Administration, Communicative Disorders, or Molecular Biology and Microbiology.

10. **Humanities**
    - 18 hours of approved courses in History, Philosophy, Humanities, or Judaic Studies, or a minor in History, Philosophy or Multicultural Humanities.

11. **Languages**
    - 18 hours of approved language courses, or a minor in French, German, Italian, Russian, or Spanish.

12. **Letters**
    - 18 hours of approved courses in English, Foreign Literature, or Comparative Literature, or a minor in Creative Writing, Literature, Linguistics, Technical Writing and Editing, or Writing.

13. **Mathematical Sciences**
    - 18 hours of approved courses in Mathematics and Statistics, or a minor in Mathematics or Statistics.
14. Physical Sciences
   18 hours of approved courses in Astronomy, Chemistry, Forensic Science, Physical Geography, Geology, Physics, or Meteorology, or a minor in Chemistry or Physics.
15. Public Affairs
   18 hours of approved courses, or a minor in Criminal Justice, Legal Studies, or Public Administration.

Interdisciplinary minors:
17. American Studies.
20. Gerontology certificate.
22. Latin American and Iberian Studies.
24. Russian Area Studies.
25. Women's Studies.

DEPARTMENT OF MATHEMATICS
Chair: Dr. John R. Cannon, PH 403, Phone (407) 823-2795

The Department of Mathematics offers courses and programs which lead to a Bachelor of Science in Mathematics, a minor in mathematics, a Master of Science in Mathematical Science and a Ph.D in Mathematics. (See the Graduate Studies catalog for a description of the M.S. in Mathematical Science and the Ph.D. in Mathematics.)

The programs in mathematics are designed to serve; (1) students who wish to pursue careers in mathematics after having completed a baccalaureate degree; (2) students who wish to continue their education in graduate and professional schools; and (3) students who need to use advanced mathematics as a tool in their specialty areas.

In order to serve such a wide variety of students, the courses and programs in the Department of Mathematics have developed along several lines. There are the usual service courses in precalculus and calculus along with strong programs in the upper division in the traditional areas of algebra and analysis and applied mathematics.

The department does not award credit by examination for courses which are regularly taught. Students who feel they know the material in a given course are encouraged to take a more advanced class to fulfill their mathematics requirement.

A limited number of student assistantships are available for qualified graduate students.

HONORS COURSES
Currently, the Department of Mathematics offers special courses for students in the Honors Program. These are listed as MAC 2311H, MAC 2312H, MAC 2313H, MAC 3930H, and MAP 2302H.

MINOR
The Department of Mathematics offers a minor consisting of a minimum of 21 hours of course work. All courses used for a minor in mathematics must be completed with a grade of "C" or better.

Required Courses: MAC 2311, 2312, 2313, MAP 2302
(MAC 2311 and 2312 may be waived by the Department Standards Committee for a student with adequate high school preparation in calculus.)
Restricted Electives: A minimum of two courses selected from MHF 2300, MAA courses, MAD courses, MAP courses, MAS courses, MTG courses, or from mathematics Honors courses that are approved for this purpose by the Department Standards Committee.
Bachelor of Science: Mathematics

Degree Requirements

1. All Undergraduate Degree Requirements (see Undergraduate Degree Requirements in index).

2. A grade of "C" or better in each course required in the degree program (see 5 and 6 below).

3. All mathematics courses except MAC 2311, 2312, 2313, and MAP 2302 must either be taken from the Department of Mathematics at UCF or must be approved by the Mathematics Department Standards Committee. The Department suggests that students take MAS 3105 (Elementary Linear and Matrix Algebra) before taking MAS 3106 (Linear Algebra). MAS 3105 will then be used as an elective.

4. Foreign Language proficiency equivalent to two semesters.

5. One course selected from

- ENC 3241 Technical Report Writing
- ENC 3310 Magazine Writing
- ENC 3311 Advanced Expository Writing

(0-8 hours)

6. One of the areas of specialization below must be selected:

(a.) Mathematics Option (Required courses in recommended order):

1st Year Sequence
- MAC 2311 Calculus I (Fall) 4 hours
- STA 2023 Statistical Methods I (Fall) 3 hours
- MAC 2312 Calculus II (Spring) 4 hours
- MHF 2300 Logic and Proof (Spring) 3 hours
- BSC 2010 General Biology (Spring) 4 hours

(18 hours)

2nd Year Sequence
- MAC 2313 Calculus III (Fall) 4 hours
- MAS 3105 Elementary Linear and Matrix Algebra (Fall) 4 hours
- PHY 2048 Physics for Engineers & Scientists I (Fall) 3 hours
- PHY 2048L Physics Lab I (Fall) 1 hour
- MAP 2302 Differential Equations (Spring) 3 hours
- MAS 3106 Linear Algebra (Spring) 4 hours
- PHY 2049 Physics for Engineers & Scientists II (Spring) 3 hours
- PHY 2049L Physics Lab II (Spring) 1 hour

(23 hours)

3rd Year Sequence
- MAP 4363 Applied Boundary Value Problems I(Fall) 3 hours
- STA 4321 Statistical Theory I (Fall) 3 hours
- COP 2500 Computer Science I (Fall) 3 hours
- MAS 4301 Algebraic Structures (Fall) 3 hours
- STA 4322 Statistical Theory II(Spring) 3 hours
- COP 2501 Computer Science II(Spring) 3 hours

(18 hours)

4th Year Sequence
- MAA 4226 Advanced Calculus I(Fall) 4 hours
- MAA 4227 Advanced Calculus II(Spring) 3 hours
- MAD 4203 Combinatorics and Graph Theory (Fall) 3 hours
- MTG 4302 Introduction to Topology (Spring) 3 hours
- MAP 4307 Applications to Complex Variables (Spring) 3 hours

(21 hours)

Additional Requirements for Mathematics Option:

(i) A minimum of 4 hours selected from upper division or graduate mathematics or statistics courses or from COT 4500, COT 5510, COT 4210, or ENG 4634. (MAC 2233, 2253, 2254, MAE 3817, and MAA 5211 may not be used.)

(ii) One additional course in either the biological or physical sciences. This course must be approved by the Department Standards Committee. A list of acceptable courses may be obtained from the Mathematics Department.
(b.) Applied Mathematics Option (Required courses in recommended order).

1st Year Sequence

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Semester</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAC 2311</td>
<td>Calculus I (Fall)</td>
<td>18 hours</td>
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<tr>
<td>STA 2023</td>
<td>Statistical Methods I (Fall)</td>
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<tr>
<td>MAC 2312</td>
<td>Calculus II (Spring)</td>
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<tr>
<td>MHF 2300</td>
<td>Logic and Proof (Spring)</td>
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<tr>
<td>BSC 2010</td>
<td>General Biology (Spring)</td>
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2nd Year Sequence

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<td>Calculus III (Fall)</td>
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<td>Elementary Linear and Matrix Algebra (Fall)</td>
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<tr>
<td>PHY 2048</td>
<td>Physics for Engineers &amp; Scientists I (Fall)</td>
<td>23 hours</td>
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<td>PHY 2048L</td>
<td>Physics Lab I (Fall)</td>
<td>23 hours</td>
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<tr>
<td>MAP 2302</td>
<td>Differential Equations (Spring)</td>
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<td>MAS 3106</td>
<td>Linear Algebra (Spring)</td>
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<td>Physics for Engineers &amp; Scientists II (Spring)</td>
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<td>PHY 2049L</td>
<td>Physics Lab II (Spring)</td>
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3rd Year Sequence

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<tr>
<td>MAD 4203</td>
<td>Combinatorics &amp; Graph Theory (Fall)</td>
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<td>or</td>
<td>(or)</td>
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<tr>
<td>MAP 4153</td>
<td>Vector and Tensor Analysis (Fall)</td>
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<td>MAP 4307</td>
<td>Applications of Complex Variables (Spring)</td>
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<td>MAP 4363</td>
<td>Applied Boundary Value Problems I (Fall)</td>
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<td>MAP 4364</td>
<td>Applied Boundary Value Problems II (Spring)</td>
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<td>STA 4322</td>
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4th Year Sequence

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<td>Advanced Calculus I (Fall)</td>
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<td>COT 4500</td>
<td>Numerical Calculus (Fall)</td>
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<td>MAP 4103</td>
<td>Mathematical Modeling (Spring)</td>
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Additional Requirements for Applied Mathematics Option:

(i) Applied Elective (from an approved list available in the department) 3 hours
(ii) One course selected from upper division or graduate mathematics or statistics courses or from COT 5510 or COT 4210. (MAC 2233, 2253, 2254, MAE 3817 and MHF 4404 may not be used.) 4 hours
(iii) One additional course in either the biological or physical sciences. This course must be approved by the Department Standards Committee. A list of acceptable courses may be obtained from the Mathematics Department.

7. Electives

The number of elective hours depends on the courses chosen to satisfy University requirements and the area of specialization. The courses used as electives must be approved by the Department Standards Committee.

Total Semester Hours Required 120 hours

DEPARTMENT OF MUSIC

Chair: L. Brodie, FA 105A, Phone (407) 823-2869, FAX (407) 823-3378
Assistant Chair: J. Gardner


Part-Time Faculty: Almeida, Fox, Gifford, Hardy, Lesko, A. Mascaro, J. Mascaro.

The Department of Music offers a Bachelor of Music degree with options in performance and piano pedagogy; a Bachelor of Arts Degree in music; and a Bachelor of Music Education Degree with specializations in instrumental, choral and elementary school music.

The Music Education programs are approved by the Florida State Department of Education. Students who wish to be certified to teach in elementary and secondary schools should consider a major in Music Education. Courses leading to teacher certification are offered
cooperatively with the College of Education. Master of Arts and a Master of Education degrees in Music Education are offered by the College of Education.

The Music Department is fully accredited by the National Association of Schools of Music.

Music organizations on campus include Pi Kappa Lambda, Phi Mu Alpha, Sigma Alpha Iota, Tau Beta Sigma, Kappa Kappa Psi, University Vocal Society, Gospel Choir, MIDIUser Group and a Student Chapter of Music Educators National Conference.

SPECIAL PERFORMANCE AND MUSIC EDUCATION ENTRANCE REQUIREMENTS

In order to be accepted as a music or music education major, the student must perform an audition. Each student must demonstrate an advanced level of proficiency by performing compositions representing a variety of musical periods. Memorization is required for pianists and vocalists. Accompanists will be furnished only upon the student's request prior to the audition. Each candidate must bring music for the compositions he or she intends to perform. The department will provide large instruments such as the tuba, string bass, or tympani for these auditions. All smaller instruments must be brought to the University. The audition will serve as a placement examination for accepted candidates.

As a prerequisite for formal admission to the State Approved Program of Teacher Education students must:

1. score at or above the 40th percentile of all college-bound persons tested on the American College Testing Program (ACT, score 20) or the Scholastic Aptitude Test (SAT, score 640) and have this score reported as part of their official academic record
2. have an overall G.P.A. of 2.5
3. have satisfactorily completed EDG 4321 (Teaching Strategies)
4. have passed the College Level Academic Skills Test (CLAST)
5. submit a formal junior student teaching application to the College of Education Student Internships Office. Must meet the College of Education's requirements for admission to Junior and Senior Year Student Teaching.

Since July 1, 1980, all applicants for a teaching certificate in Florida must pass a written competency examination administered by the Florida State Department of Education.

Since July 1, 1982, all applicants for their First Regular Florida Teaching Certificate must satisfy requirements of the Florida Beginning Teacher Program.

COMPREHENSIVE EXAMINATIONS

Comprehensive examinations in music theory and music history should be taken by students at the end of the sophomore year. Examinations in ear-training, sight-singing, part-writing, and visual analysis will comprise the final examination at the end of the sophomore year; 80% of each unit must be passed before a student will be advanced to the junior level. The music history examination will be offered during the Fall and Spring. [See policy regarding recitals and student teaching.]

Bachelor of Music (B.M.) students must complete all but one of their required comprehensive examinations and piano proficiency before they will be permitted to audition for their senior recital. Bachelor of Arts and Bachelor of Music Education (B.M.E.) students must complete three of their comprehensive examinations prior to auditioning for their 30-minute public recital. B.M.E. students must complete all but one of their required comprehensive examinations before they will be permitted to do their senior student teaching. B.M.E. students may not give their required recital during the semester of their senior student teaching. Their student teaching must be done in the area of their specialization.

POLICY REGARDING MAJOR ENSEMBLE PARTICIPATION

1. In order to graduate, Bachelor of Music students must spread their required 8 semester hours of major ensemble credit over at least 8 separate semesters; Bachelor of Arts students must spread their required 6 semester hours of major and/or minor ensemble credit over at least 6 separate semesters.
2. The following ensembles are defined as major ensembles: chorus, symphony orchestra, concert band, marching band, and wind ensemble.*
3. Vocal music education majors may elect to substitute 1 hour of band or orchestra or 1 hour of the minor ensemble requirement, provided they have sufficient ability on an appropriate instrument.
4. Assignment to major ensembles will be made by the ensemble directors.
5. Undergraduate students taking a course in Performance must concurrently take a major ensemble appropriate to their principal instrument.

*Jazz lab may be counted as one half the total number of required major ensembles.

POLICY REGARDING MINOR ENSEMBLE PARTICIPATION
1. In order to graduate, B.M. students must spread their required 4 semester hours of minor ensemble credit over at least 3 separate semesters; B.A. students who have a total of 6 semester hours of major or minor ensembles in 6 semesters must spread their required 2 semester hours of minor ensemble credit over at least 2 separate semesters.
2. The following ensembles are defined as minor ensembles: Brass Ensembles, Percussion Ensembles, Piano Ensembles, String Ensembles, Vocal Ensembles (except Opera Workshop), Woodwind Ensembles, Jazz Lab.*

*Jazz lab may be counted as one half the total number of required major ensembles.

POLICY REGARDING RECITALS AND STUDENT TEACHING
Bachelor of Music and Bachelor of Arts students with a performance specialization must complete but one of their required comprehensive examinations and piano proficiency before they will be permitted to audition for their senior recital. Bachelor of Music education students must complete all but one of their required comprehensive examinations before they will be permitted to do their senior student teaching. Bachelor of Music Education students may not give their required recital during the semester of their senior student teaching.

MINOR
The Department of Music offers a Minor in Music. The requirements are as follows:
1. A successful audition on the student's principal instrument or voice.
2. A minimum of 21 semester hours credit to include the following or their equivalent: MUT 1111, MUT 1112 (4 hours); MUT 1241, MUT 1242 (2 hours); MUL 2010 (3 hours); major ensemble credit spread over at least 4 separate semesters (4 hours); 2 semesters of performance level I (4 hours) and 2 semesters of performance level II (4 hours) on the same performance medium.
3. A minimum of 11 semester hours of these required courses, including two semesters of a major performing organization and two semesters of performance level II, must be completed at UCF.
5. A GPA of 2.0 is required for all music courses attempted, whether used to fulfill these requirements or not.

Bachelor of Music: Performance
Degree Requirements
1. See Undergraduate Degree Requirements
2. See special college and/or department requirements
3. Required Courses [both specializations] (65-77 hours)
   - MUS 1010 Music Forum (8 semesters) 0 hours
   - MUT 1111, 1112 Music Theory I 4 hours
   - MUT 2116, 2117 Music Theory II 4 hours
   - MUT 3571 20th Century Musical Analysis 3 hours
   - MUT 1241, 1242 Ear Training and Sight Singing I 2 hours
   - MUT 2246, 2247 Ear Training and Sight Singing II 2 hours
   - MVB/MVK/MVP/MVS/MVV/MVW Performance (8 semesters including 2 semesters of Level IV) 16 hours
   - MUH 4211, 4212 Music History** 6 hours
   - MUN Major Ensemble (8 semesters)* 8 hours
   - MUN Minor Ensemble (4 semesters) 4 hours
   - MVK 1111-1141 Class Piano I-IV 0-4 hours
   - MUG 3101 Basic Conducting 2 hours

MUG 3101 Basic Conducting 2 hours
4. Restricted Electives

Any secondary performance course not in area of major instrument or any MUC, MUE, MUG, MUH, MUL, MUN, MUS, MUT courses numbered 3000 or higher. Up to one additional year of foreign language. In partial fulfillment of their elective requirements, piano students must take Piano Literature (MUL 3400, 3401 — 2 hours each) for a combined total of 4 hours; voice students take Foreign Language Diction (FRE 1005, GER 1005, ITA 1005 — 1 hour each), Voice Pedagogy (MVK 4640, 4641 — 1 hour each), and Song Literature (MUL 3600, 3601 — 1 hour each) for a combined total of 7 hours; piano pedagogy students take Piano Literature (MUL 3400, 3401 — 2 hours each), Piano Pedagogy (MVK 4640, 4641 — 1 hour each), and Studio Teaching (MUS 4401) for 2 hours, for a combined total of 8 hours.

* Not required of piano/guitar majors

** Three semester hours of coursework in the General Education are satisfied by MUH 4212.

5. Special Non-Course Requirements

a.) Students are required to take piano until they pass the Piano Proficiency.

b.) Music Theory, ear-training and sight-singing comprehensive examinations, must be successfully completed at the end of MUT 2247 and MUT 2117.

c.) Two faculty-approved public recitals: a junior recital of 30 minutes length and a senior recital of 45 minutes length. Students who select the Piano Pedagogy option will perform two faculty-approved thirty-minute recitals.

d.) Residency requirements: 2 semesters of Performance Level IV; senior recital; piano, history, theory, ear training, and sight singing comprehensive examinations.

e.) At least 77 hours of credit must be earned in music courses.

Bachelor of Arts: Music

Degree Requirements

1. See Undergraduate Degree Requirements

2. See special college and/or department requirements

3. Required Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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<td>Music Forum (6 semesters)</td>
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<tr>
<td>MUT 1111, 1112</td>
<td>Music Theory I</td>
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</tr>
<tr>
<td>MUT 2116, 2117</td>
<td>Music Theory II</td>
<td>4</td>
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<td>MUT 1241, 1242</td>
<td>Ear Training and Sight Singing I</td>
<td>2</td>
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<tr>
<td>MUT 2246, 2247</td>
<td>Ear Training and Sight Singing II</td>
<td>2</td>
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<tr>
<td>MUT 3571</td>
<td>Twentieth Century Musical Analysis</td>
<td>3</td>
</tr>
<tr>
<td>MV8/MVK/MVP/</td>
<td>Performance (6 semesters including</td>
<td>12</td>
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<tr>
<td>MVS/MVV/MWW</td>
<td>2 semesters of Level III)</td>
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<tr>
<td>MUH 4211, 4212</td>
<td>Music History*</td>
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<td>MUN</td>
<td>Major and Minor Ensembles (6 semesters)</td>
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<td>MVK 1111-1141</td>
<td>Class Piano I-IV</td>
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(Not required of piano majors)

4. Restricted Electives

Any MUC, MUE, MUG, MUH, MUL, MUS, MUT courses numbered 3000 or higher. In partial fulfillment of their elective requirements, piano students take Piano Literature (MUL 3400, 3401 — 2 hours each) for a combined total of 4 hours; voice students take Foreign Language Diction (FRE 1005, GER, ITA 1005 — 1 hour each) and Song Literature (MUL 3600, 3601 — 1 hour each) for a combined total of 5 hours.

5. University Electives

*Three semester hours of coursework in the General Education Program are satisfied by MUH 4212.

Total Semester Hours Required: 120 Hours

Bachelor of Arts: Music

Degree Requirements

1. See Undergraduate Degree Requirements

2. See special college and/or department requirements

3. Required Courses

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<td>MUT 2116, 2117</td>
<td>Music Theory II</td>
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<td>MUT 1241, 1242</td>
<td>Ear Training and Sight Singing I</td>
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<td>MUT 2246, 2247</td>
<td>Ear Training and Sight Singing II</td>
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<td>Twentieth Century Musical Analysis</td>
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<td>MV8/MVK/MVP/</td>
<td>Performance (6 semesters including</td>
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<tr>
<td>MVS/MVV/MWW</td>
<td>2 semesters of Level III)</td>
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<tr>
<td>MUH 4211, 4212</td>
<td>Music History*</td>
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<tr>
<td>MUN</td>
<td>Major and Minor Ensembles (6 semesters)</td>
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<td>MVK 1111-1141</td>
<td>Class Piano I-IV</td>
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(Not required of piano majors)

4. Restricted Electives

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<th>Course Title</th>
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<tbody>
<tr>
<td>MUS 1010</td>
<td>Music Forum (6 semesters)</td>
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<tr>
<td>MUT 1111, 1112</td>
<td>Music Theory I</td>
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<tr>
<td>MUT 2116, 2117</td>
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<tr>
<td>MUT 1241, 1242</td>
<td>Ear Training and Sight Singing I</td>
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<td>Performance (6 semesters including</td>
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<td>MVS/MVV/MWW</td>
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<td>Music History*</td>
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<td>MUN</td>
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<tr>
<td>MVK 1111-1141</td>
<td>Class Piano I-IV</td>
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(Not required of piano majors)

4. Restricted Electives

Any MUC, MUE, MUG, MUH, MUL, MUS, MUT courses numbered 3000 or higher. In partial fulfillment of their elective requirements, piano students take Piano Literature (MUL 3400, 3401 — 2 hours each) for a combined total of 4 hours; voice students take Foreign Language Diction (FRE 1005, GER, ITA 1005 — 1 hour each) and Song Literature (MUL 3600, 3601 — 1 hour each) for a combined total of 5 hours.

5. University Electives

*Three semester hours of coursework in the General Education Program are satisfied by MUH 4212.

Total Semester Hours Required: 120 Hours

Bachelor of Arts: Music
6. Special Non-Course Requirements
   a. Students must take music history, theory, ear training, piano, and sight singing comprehensive examinations. Music Theory, ear-training and sight-singing comprehensive examinations must be successfully completed at the end of MUT 2247 and MUT 2117.
   b. One faculty-approved thirty-minute recital.
   c. Residency requirements: 2 semesters of Performance Level III; 2 ensembles, [each in a different semester]; 2 semesters of MUS 1010, history, theory, ear training, and sight singing, piano comprehensive examinations; recital.

Total Semester Hours Required 120 hours

Bachelor of Music Education

Degree Requirements
1. See Undergraduate Degree Requirements
2. UCF Residency Requirements
3. See special college and/or department requirements
4. Required Courses (74 hours)

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<td>Music Forum (6 semesters)</td>
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<tr>
<td>MUT 1111, 1112</td>
<td>Music Theory I</td>
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<td>MUT 2116, 2117</td>
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<td>MUT 3571</td>
<td>20th Century Musical Analysis</td>
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<tr>
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<td>Ear Training and Sight Singing I</td>
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<td>MUT 2246, 2247</td>
<td>Ear Training and Sight Singing II</td>
<td>2</td>
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<tr>
<td>MVB/MVK/MVP/ MVS/MVV/MVW</td>
<td>Performance (6 semesters including 2 semesters of Level III)</td>
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<td>Music History</td>
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<td>MUG 3101</td>
<td>Basic Conducting</td>
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<td>MUE 2040</td>
<td>Intro to Music Education</td>
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<tr>
<td>MUE 3460</td>
<td>Brass Techniques</td>
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<td>MUE 3470</td>
<td>Percussion Techniques</td>
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<td>MUE 3440</td>
<td>String Techniques</td>
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<td>MUE 3450</td>
<td>Woodwind Techniques</td>
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<tr>
<td>EDF 3603</td>
<td>Analysis of Educational Foundations</td>
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<td>EDF 4214</td>
<td>Classroom Learning Principles</td>
<td>3</td>
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<td>EDG 4324</td>
<td>Teaching in the Schools</td>
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<td>EDG 4321</td>
<td>Teaching Strategies</td>
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<td>EDE 3943</td>
<td>Junior Year Student Teaching</td>
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<tr>
<td>MUE 4311</td>
<td>Elementary School Music Methods</td>
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<td>MUE 4360</td>
<td>Secondary School Music Methods</td>
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Program A — Instrumental

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<td>Class Piano I-IV (Not required of piano majors)</td>
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<td>MUE 3451</td>
<td>Woodwind Techniques II</td>
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<td>MUG 3302</td>
<td>Instrumental Conducting and Materials</td>
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<td>MUT 4344</td>
<td>Seminar in Music Arranging</td>
<td>1</td>
</tr>
<tr>
<td>MUE 4480</td>
<td>Marching Band Techniques</td>
<td>1</td>
</tr>
<tr>
<td>ESE 4943</td>
<td>Senior Student Teaching-Secondary</td>
<td>12</td>
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</tbody>
</table>

Program B — Choral

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>MVK 1111-1141</td>
<td>Class Piano I-IV (Not required of piano majors)</td>
<td>0-4</td>
</tr>
<tr>
<td>MVV 1111</td>
<td>Class Voice (Not required of voice majors)</td>
<td>0-2</td>
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<tr>
<td>MUG 3202</td>
<td>Choral Conducting and Materials</td>
<td>3</td>
</tr>
</tbody>
</table>
MVB/MVK/MVP/
MVS/MVV/MVW Performance IV 2 hours
ITA 1005
FRE 1005 Diction 3 hours
GER 1005 Senior Student Teaching-Secondary 12 hours
ESE 4943

Program C — Elementary School
MVK 1111-1141 Class Piano I-IV 0-4 hours
(Not required of piano majors)
MVV 1111 Class Voice (3 semesters) 0-3 hours
(Not required of voice majors)
MVS 1216 Secondary Guitar 1 hour
MVO 1214 Secondary Recorder 1 hour
Special Topics in Elementary School Music (2 semesters) 4 hours
EDE 4943 Senior Student Teaching-Elementary 12 hours

5. Restricted Electives none
6. Electives none

*Three semester hours of course work in the General Education Program are satisfied by MUH 4212.

7. Special Non-course requirements:
   a. Students are required to take piano until they meet the Piano Proficiency requirements.
   b. A faculty-approved public recital of at least 30 minutes length. (A recital is optional for the Elementary School Music Specialization).
   c. Music Theory, ear-training and sight-singing comprehensive examinations, must be successfully completed at the end of MUT 2247 and MUT 2117.
   d. Students graduating from UCF with a major in music education must complete their last two semesters of required performance; their recital, if required; and, their senior year student teaching while attending UCF.
   e. A GPA of 2.5 is required for all courses attempted.
   f. After completing Internship I, all music education majors must successfully pass the Pre-Professional Interview with the Music Education faculty.

Total Semester Hours Required 129-133 hours

DEPARTMENT OF PHILOSOPHY
Chair: J. Riser, FA 411, Phone (407) 823-2273
Faculty: Flick, Hawkins, Jones, Kassim, Levensohn, Park, Riser, White

The Department of Philosophy offers a Philosophy major and a multicultural Humanities major, as well as minors in philosophy, humanities, religious studies, and Asian studies.

The Department requires Philosophy and Humanities majors to receive advisement prior to registering each semester. Majors should schedule appointments with their advisor when picking up their registration form and schedule booklet.

For any course used to satisfy a requirement (including electives) of either the Philosophy major or the Humanities major, a grade of "C" or better must have been received.

MINORS
The Department of Philosophy offers the following minors:

1. Philosophy (21 hours)
   Selection of courses from an approved list, in consultation with a departmental advisor, with the following distribution: one course in critical thinking/logic, two courses in the history of philosophy, two courses in values and society, and two courses in philosophical analysis. For information, consult Dr. Donald Jones at (407) 823-2273.

2. Multicultural Humanities (24-27 hours)
The minor requires either 12 hours in each of two cultural traditions or 9 hours in each of three. Relevant areas include Asia, Middle East, Africa, Europe, the Americas, critical theory, gender studies, or others to be specified under advisement. Courses will be selected with the help of an advisor and should deal with subject matter from an
interdisciplinary viewpoint sensitive to cultural context, tradition, and identity. Students interested in the Liberal Arts major will find this minor particularly helpful. For information, consult Dr. Daniel White at (407) 823-2273.

3. Asian Studies (24 hours)
An interdisciplinary minor in which seven UCF departments - Anthropology, Art, Economics, Foreign Languages and Literatures, History, Philosophy, and Political Science participate in order to offer students a basic and well-rounded background in the field. For information, consult Dr. Daniel White at (407) 823-2273.

4. Religious Studies (21 hours)
An interdisciplinary and multicultural minor which requires, in addition to the World Religions course as a prerequisite, eighteen hours, twelve of which must be completed at UCF. For information about specific course options, consult Dr. Stephen Levensohn at (407) 823-2273.

Bachelor of Arts: Philosophy
Degree Requirements
1. See Undergraduate Degree Requirements
2. See special college and/or department requirements
3. Regular Major
A. Required Courses (18 hours)
   1. Five of the following courses in the history of philosophy
      PHH 3100 Ancient Philosophy 3 hours
      PHH 3941 Medieval Philosophy 3 hours
      PHH 3400 Modern Continental Philosophy 3 hours
      PHH 3402 Modern British Philosophy 3 hours
      PHH 3601 Contemporary Continental Philosophy 3 hours
      PHH 3602 Contemporary Analytic Philosophy 3 hours
      PHH 3041 Russian Philosophy 3 hours
      2. PHI 4933 Metaphysics 3 hours
B. Restricted Elective Courses (18 hours)
Electives must be upper-division courses in philosophy or related areas, subject to approval by one's advisor. For those wishing to concentrate in a specific area, the following models of elective course concentration may serve as a guide.
   1. Logic/Philosophy of Science
      PHI 2011 Philosophical Reasoning 3 hours
      PHI 3101 Critical Thinking 3 hours
      PHI 3130 Formal Logic I 3 hours
      PHI 3131 Formal Logic II 3 hours
      PHI 4400 Philosophy of Science 3 hours
      PHI 4420 Philosophy of Social Science 3 hours
   2. Value Theory
      PHI 3400 Philosophy of Law 3 hours
      PHI 3600 Ethics 3 hours
      PHI 3700 Philosophy of Religion 3 hours
      PHI 3800 Aesthetics 3 hours
      PHM 3100 Freedom and Justice 3 hours
      PHM 4123 Feminist Theory 3 hours
   3. Critical Theory/Cultural Studies
      HUM 3320 Contemporary Multicultural Studies 3 hours
      HUM 3401 Asian Humanities 3 hours
      HUM 3431 Ancient World: Greece 3 hours
      PHI 3022 Sexuality, Gender and Philosophy 3 hours
      PHI 4802 Critical Theory and Practice I 3 hours
      PHI 4804 Critical Theory and Practice II 3 hours
   4. Religious Studies
      CLA 3850 Classical Mythology 3 hours
      CLA 3851 Comparative Mythology 3 hours
      HUM 3417 Hindu Thought and Culture 3 hours
      HUM 3418 Islamic Thought and Culture 3 hours
HUM 3553  Moses, Jesus and Muhammad  3 hours
PHI 3700  Philosophy of Religion  3 hours

C. Electives:
Students are encouraged to select courses from other disciplines that supplement training in philosophy.

Foreign Language: two semesters or proficiency is required  (0-8 hours)

Total Semester Hours Required  120 hours

Honors Major
1. Admission to and continuing acceptance in University Honors Program.
2. Satisfaction of all University requirements for Honors in the major.
3. Grade of "B" or better in Honors Directed Readings (3 hours).
5. Courses to be selected with guidance and approval of Honors Advisor.

Bachelor of Arts: Humanities

Degree Requirements
1. See Undergraduate Degree Requirements
2. See special college and/or department requirements
3. Required Courses; with your advisor, select courses dealing with the following topic areas
   Common Core  (18 hours)
   - European history, literature or philosophy  6 hours
   - Asian culture or philosophy  6 hours
   - Music appreciation or theory  3 hours
   - Mythology  3 hours
4. Specialized tracks (Select one of the two following tracks)  (30 hours)
   Cultural Studies Track
   - Ancient Greece and Rome  6 hours
   - Hindu, Islamic or Judaic culture, philosophy or religion  6 hours
   - History of philosophy  6 hours
   - History of Art  6 hours
   - Gender studies  3 hours
   - Aesthetics or critical theory  3 hours
   Cultural Theory Track
   - Ancient Greece and Rome  3 hours
   - Philosophy or culture of religion  3 hours
   - History of philosophy and Philosophy  6 hours
   - History of Art  3 hours
   - Gender studies  6 hours
   - Aesthetics or critical theory  6 hours
   - Senior thesis  3 hours
5. Electives
   May be used to obtain a second major or to complete requirements for teacher certification in Humanities in the College of Education.
6. Foreign Language: two semesters/proficiency is required  (0-8 hours)
   Total Semester Hours Required  120 hours

DEPARTMENT OF PHYSICS
Chair: W.T. Silfvast, HPB 310, Phone (407) 823-2325
Faculty: Bass, Barlow, Boilemon, Bose, Brennan, Caldwell, Chai, Chow, Dellyette, Elias, Hagan, Heinonen, Johnson, Kim, Llewellyn, Luo, Neighbor, Peale, Renken, Richardson, Saha, Schulte, Silfvast, Soileau, Stegeman, Van Stryland, Zeldovich

Physics is a basic science. Students learn scientific, laboratory, computer, and mathematical skills which prepare them for a variety of careers. These include research and development, teaching in schools, colleges, and universities, and the many careers (such as finance, business or law) in which a technical degree offers an unusual edge.
The Department of Physics offers B.S., M.S., and Ph.D. degrees. Besides the traditional twin topics of classroom and laboratory physics, our programs (both undergraduate and graduate) emphasize developing expertise in scientific computation and carrying out professional research in collaboration with faculty members.

All of our students are encouraged to use the department's networked computer workstations and PC's. In addition, many of the advanced courses require and teach the use of computers to solve real-world scientific and engineering problems.

Undergraduates are encouraged to become involved in research with faculty. There are many research opportunities in such areas as optical, laser, condensed matter, atomic, molecular, particle, plasma, and gravitational physics. Graduate programs emphasize research.

Physics courses which are required by other majors are offered regularly, as is the course, Physical Science, which satisfies the general education requirements. Students interested in being a physics major are encouraged to see a faculty advisor as soon as possible to design a curriculum. An appointment to see the advisor is necessary prior to registration each semester.

**MINOR**

The Department of Physics offers a minor consisting of a minimum of 20 semester hours. Required courses: PHY 2048, 2048L, 2049, 2049L, 3101. The remaining 9 semester hours must be selected from appropriate upper-level lecture or laboratory courses.

**HONORS**

Honors sections of the introductory physics sequence are available to students with appropriate academic standing.

**Degree Requirements**

1. General Undergraduate Degree Requirements *
2. In addition to the degree requirements listed below for a B.S. in Physics, the following standards are required by the department for graduation. Approval as a special case by the department Undergraduate Affairs Committee must be requested for any waiver.
   (a) A minimum GPA of 2.0 for all courses used for a major in physics.
   (b) No credit toward graduation for a "D" grade in any physics or mathematics course required for a major in physics; a higher grade on repeating is acceptable.
3. Required courses. (71 hours)

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<tr>
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<th>Hours</th>
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<tr>
<td>BSC 2010C</td>
<td>General Biology</td>
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<tr>
<td>CHM 2045, 2046, 2046L</td>
<td>Chemistry Fundamentals</td>
<td>8</td>
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<tr>
<td>MAC 2311, 2312, 2313</td>
<td>Calculus with Analytic Geometry</td>
<td>12</td>
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<td>MAP 3302</td>
<td>Differential Equations</td>
<td>3</td>
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<tr>
<td>PHY 2048, 2048L</td>
<td>Physics for Scientists and Engineers I</td>
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<tr>
<td>PHY 2049, 2049L</td>
<td>Physics for Scientists and Engineers II</td>
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<td>PHY 3101</td>
<td>Physics for Scientists and Engineers III</td>
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</tr>
<tr>
<td>PHZ 3113</td>
<td>Introduction to Theoretical Methods of Physics</td>
<td>3</td>
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<tr>
<td>PHY 3221</td>
<td>Mechanics I</td>
<td>3</td>
</tr>
<tr>
<td>PHY 3503</td>
<td>Thermal and Statistical Physics</td>
<td>3</td>
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<tr>
<td>PHY 3323, 4324</td>
<td>Electricity and Magnetism I &amp; II</td>
<td>6</td>
</tr>
<tr>
<td>PHY 3752C</td>
<td>Physics of Scientific Instruments</td>
<td>3</td>
</tr>
<tr>
<td>PHY 4604, 4605</td>
<td>Wave Mechanics I &amp; II</td>
<td>6</td>
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<tr>
<td>PHY 3802L</td>
<td>Intermediate Physics Laboratory</td>
<td>3</td>
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<td>PHY 4803L</td>
<td>Advanced Physics Laboratory</td>
<td>3</td>
</tr>
<tr>
<td>PHY 4912</td>
<td>Directed Independent Research</td>
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</table>

4. Restricted Electives (13 hours)

Upper division courses approved by the advisor.

A minimum of six hours of these must be PHY or PHZ courses. 15 hours

Total Semester Hours Required 120 hours

*Foreign Language Requirement in B.S. Program in Physics

Physics majors are required to take FL 1120 and FL 1121 or take and pass a proficiency examination at the level of FL 1121 administered by the Department of Foreign Languages and
Literatures. A native speaker should substitute advanced level courses in the language. The admission requirement for FL 1121 is a passing grade in FL 1120.

DEPARTMENT OF POLITICAL SCIENCE

Chair: R. L. Bledsoe, FA 415, Phone (407) 823-2608

Faculty: Benson, Bledsoe, Fine, Hall, Hamann, Handberg, Jewett, Kennedy, Kiel, Kurfirst, J. Lilie, S. Lilie, McCoy, Morales, Pollock, Sadri, Vittes

The Department of Political Science seeks to (1) provide students with a broad background for careers in foreign and domestic public service and in the private sector where a knowledge of government and politics is necessary; (2) provide students with a broad background in prelaw to facilitate their admission to law school; (3) prepare students for teaching, research, and graduate study in Political Science; (4) provide a broad background for careers in politics; and (5) educate citizens and promote their active interest in public affairs. Students should plan their major or minor in consultation with their departmental advisor according to their interests and career objectives.

Political Science courses are divided into three areas of specialization: American Politics and Policy; International Relations and Comparative Politics; and Political Theory. It is strongly recommended that majors planning to continue their education at the graduate level or to pursue a career in international fields acquire a working knowledge of a foreign language.

The Department of Political Science participates in the following programs:
Asian Studies: Contact Dr. Robert Bledsoe.
Canadian and Commonwealth Studies: Contact Dr. M. Elliot Vittes.
Latin American and Iberian Studies: Contact Dr. Waltraud Q. Morales.
Russian Area Students: Contact Dr. Gregg Hall.
Space Studies: Contact Dr. Roger B. Handberg, Jr.
Women's Studies: Contact Dr. Joyce R. Lilie

MINORS
The Department of Political Science offers minors consisting of a minimum of 18 semester hours in each minor. A minimum GPA of 2.0 in the minor is required.

1. Political Science
   Required courses: POS 2041. In the event a student has taken the varying credit POS 4941, only 3 semester hours from this course can be used in the minor. Four courses (12 semester hours) must be taken at senior institutions. Except for these requirements, students may select any other Political Science courses with the aid of an advisor.

2. Political Science/Prelaw
   Required courses: POS 2041, POS 4284; at least one from INR 4401, INR 4402, POS 4603, or POS 4604. In the event a student has taken the varying credit POS 4941, only 3 semester hours from this course can be used in the minor. Only two courses (6 semester hours) from a two-year institution will be accepted as part of the minor. Except for these requirements, students may select any other Political Science courses with the aid of an advisor.

Bachelor of Arts: Political Science

Degree Requirements
1. See Undergraduate Degree Requirements
   Ten courses (30 semester hours) must be taken at senior institutions.
2. See special college and/or department requirements.
3. A minimum GPA of 2.0 in the major is required for graduation as a political science major.
4. Political Science majors must demonstrate proficiency in a foreign language equivalent to one year of college instruction.
5. Required Courses
   (6 hours)
   - POS 2041 American National Government 3 hours
   - *POS 3703 Scope and Methods of Political Science 3 hours
   *This course should be completed by the second semester of the junior year.

6. Restricted Electives
   (30 hours)
   Choose from one of the following emphases for a minimum of 30 additional hours.
Emphasis 1: American Politics and Policy
Five courses from area A
Two courses from area B
Two courses from area C
One additional course from any area

Emphasis 2: International Relations-Comparative Politics
*Five courses from area B
Two courses from area A
Two courses from area C
One additional course from any area
*No more than two of the following courses may be considered part of area B credit: INR 4401, INR 4402, INR 4404.

Emphasis 3: Prelaw
POS 4284 Judicial Process and Politics 3 hours
One of the following:
*POS 4603 American Constitutional Law I
POS 4604 American Constitutional Law II
INR 4401 International Law I
INR 4402 International Law II
*POS 4603 should ordinarily be taken before POS 4604.
Five courses from either area A or area B
Two courses from area A if area B is chosen above; or
Two courses from area B if area A is chosen above
One course from area C

Total Hours in Major 15 hours

AREAS OF SPECIALIZATION
The Department's courses are divided into three areas of specialization.

A. American Politics and Policy
POS 3122 State Government
POS 3173 Southern Politics
POS 3235 Mass Media and Politics
POS 3273 Voting and Elections
POS 3413 The American Presidency
POS 3424 Congress and the Legislative Process
POS 3443 Political Parties and Processes
POS 3463 Interest Groups
POS 4142 Metropolitan Politics
POS 4206 Political Psychology
POS 4246 Political Socialization
POS 4265 Power and Policy in the United States
POS 4284 Judicial Process and Politics
POS 4412 Presidential Campaigning
POS 4603 American Constitutional Law I
POS 4604 American Constitutional Law II
POS 4622 Politics and Civil Rights
PUP 3204 Environmental Politics
PUP 3314 Minorities in American Politics
PUP 4003 American Public Policy
PUP 4323 Women and Politics
PUP 4503 Government and Science
PUP 4602 Politics of Health
PUP 4931 Topics in Public Policy

B. International Relations and Comparative Government
CPO 3034 Politics of Developing Areas
CPO 3103 Comparative Politics
CPO 3104 Politics of Western Europe

Total Semester Hours Required 120 hours
While no specific major is prescribed for admission to law school, many prelaw students elect to major in political science. These individuals usually choose the prelaw emphasis within the political science major. Prelaw students are encouraged to work closely with a prelaw advisor in planning their programs. By judicious use of electives, students build a firm foundation for law school entry and acquire a broad training which can result in career options upon graduation. For further information, consult one of the Department's prelaw advisors or the College of Arts and Sciences Prelaw Advisor.

1. Some suggested electives include:

   ACG 2021 Principles of Financial Accounting
   ACG 2071 Principles of Managerial Accounting
   BUL 3320,3321 Business Law I & II
   PLA 3105 Legal Research
   PLA 3155 Legal Writing
   PHI 3130 Formal Logic I
   PHI 3131 Formal Logic II
   MHF 2300 Logic and Proof in Mathematics
   ENC 3311 Expository Writing
Internship Program: Political Science
For students who excel, a limited number of internships may be available each semester for 3 to 6 hours of credit. Under the Internship Director, the student is typically placed in an office of local, state, or national government, a law office, or campaign headquarters.

DEPARTMENT OF PSYCHOLOGY
Chair: V. Adesso, PH 302B, Phone (407) 823-2216
Associate Chair: D. Abbott, PH 305E, Phone (407) 823-2216
Faculty: Abbott, Blau, Bowers, Brophy, Burroughs, Dunn, Fisher, Forbes, Fritzche, Gilson, Hanson, Hitt, Jensen, Koonce, Lavooy, McGuire, Morgan, Mouloua, Newlin, Rinalducci, Rollins, Shirkey, Smither, Tell, Thomas, Tucker, Wang, Weaver, Wooten

The undergraduate program provides a general preparation in Psychology with the option to select an emphasis area from a variety of subfields. Suggested emphasis area course listings are available in the department. Successful completion of the specified program of at least 41 hours leads to the Bachelor of Arts degree with a major in Psychology. The Bachelor of Science option is also available. For more detailed information on the psychology curriculum, students should consult the Psychology Advisement Handbook. This handbook may be obtained in the campus bookstore under the Careers in Psychology class (PSY 2023).

MINOR
The Psychology Department offers minors in several emphasis areas, including Clinical Psychology, Human Factors Psychology, and Industrial/Organizational Psychology. The guiding principle in design of a minor is to select those Psychology courses which will strengthen the graduate school preparation and/or the marketability of the student's major program. Therefore, a minimum of 22-25 credit hours are required, 3 in Statistics, and 19-22 in Psychology, including PSY 2013 (3 hours), PSY 3204 (4 hours), and PSY 3214 (4 hours).

Bachelor of Arts/Bachelor of Science: Psychology

Degree Requirements
1. See Undergraduate Degree Requirements
2. See special college and/or department requirements
3. Foreign Language Requirements:
   B.A. — 3 semesters/proficiency or 2 semesters plus 9 hours diversity track
   B.S. — 2 semesters/proficiency plus 9 hours from the Science/Math option
4. Required Courses
   PSY 2013 General Psychology 3 hours
   PSY 3204 Statistical Methods in Psychology 4 hours
   PSY 3214 Research Methods 4 hours
   EXP 3404 Basic Learning Processes 4 hours
   PSB 3002 Physiological Psychology 4 hours
5. Restricted Electives
   a. Psychology Department (select two courses) (6 hours)
      CLP 3143 Abnormal Psychology 3 hours
      DEP 3004 Developmental Psychology 3 hours
      PPE 3003 Personality Theory 3 hours
      SOP 3004 Social Psychology 3 hours
   b. Statistics Department (select one course) (3 hours)
      STA 2014 Principles of Statistics 3 hours
      STA 2023 Statistical Methods I 3 hours
   c. For a list of approved B.S. science/math courses, consult the Psychology Advisement Handbook.
   d. For a list of approved diversity courses, consult the Psychology Advisement Handbook.
6. Additional Psychology Electives (12 hours)
Courses, offered by Psychology Department, should be selected in accordance with the student's interests and career goals and with the consent of the advisor.

MINOR
The Psychology Department offers minors in several emphasis areas, including Clinical Psychology, Human Factors Psychology, and Industrial/Organizational Psychology. The guiding principle in design of a minor is to select those Psychology courses which will strengthen the graduate school preparation and/or the marketability of the student's major program. Therefore, a minimum of 22-25 credit hours are required, 3 in Statistics, and 19-22 in Psychology, including PSY 2013 (3 hours), PSY 3204 (4 hours), and PSY 3214 (4 hours).

Bachelor of Arts/Bachelor of Science: Psychology

Degree Requirements
1. See Undergraduate Degree Requirements
2. See special college and/or department requirements
3. Foreign Language Requirements:
   B.A. — 3 semesters/proficiency or 2 semesters plus 9 hours diversity track
   B.S. — 2 semesters/proficiency plus 9 hours from the Science/Math option
4. Required Courses
   PSY 2013 General Psychology 3 hours
   PSY 3204 Statistical Methods in Psychology 4 hours
   PSY 3214 Research Methods 4 hours
   EXP 3404 Basic Learning Processes 4 hours
   PSB 3002 Physiological Psychology 4 hours
5. Restricted Electives
   a. Psychology Department (select two courses) (6 hours)
      CLP 3143 Abnormal Psychology 3 hours
      DEP 3004 Developmental Psychology 3 hours
      PPE 3003 Personality Theory 3 hours
      SOP 3004 Social Psychology 3 hours
   b. Statistics Department (select one course) (3 hours)
      STA 2014 Principles of Statistics 3 hours
      STA 2023 Statistical Methods I 3 hours
   c. For a list of approved B.S. science/math courses, consult the Psychology Advisement Handbook.
   d. For a list of approved diversity courses, consult the Psychology Advisement Handbook.
6. Additional Psychology Electives (12 hours)
Courses, offered by Psychology Department, should be selected in accordance with the student's interests and career goals and with the consent of the advisor.
Total Semester Hours Required 120 hours

7. Minimum GPA requirements for graduation:
   a. **For the baccalaureate** — a minimum psychology GPA of 2.5 with no grade less than a C in a psychology course.
   b. **For the minor** — a minimum psychology GPA of 2.5 in all courses counting toward the minor.

**Honors in Psychology**

The Honors in Psychology is available to those undergraduate psychology majors who have distinguished themselves academically. The opportunity to pursue this recognition is limited to those students who show outstanding scholarship and promise in the field of psychology. To qualify for Honors in Psychology, students must attain junior standing and meet or surpass GPA and course prerequisites (further information is found in the Undergraduate Psychology Handbook). The two-course honors sequence begins in the Fall semester with directed readings (PSY 4903H) and concludes with the successful defense of an honors thesis in the Spring (PSY 4970H). Interested students must contact the Psychology Chairperson or Director of Undergraduate Program in Psychology and present a written commitment from a faculty sponsor who will direct the student through the honors sequence.
RUSSIAN AREA STUDIES

Four UCF departments, Foreign Languages, History, Political Science, and Philosophy, have pooled their resources to offer a minor to students interested in a basic and well-rounded background in Russian Area Studies. The philosophy of the program is to offer students a multidisciplinary approach to the subject, so as to allow them to grasp the subject in its complexity and to understand linguistic, cultural, historical, political, and socio-economic interrelationships.

Russian Area Studies requirements:
1. Three semesters of Russian Language (11 hours)
2. Requires courses (12 hours)
   - RUS 3500 Russian Culture  3 hours
   - EUH 4576 History or Russia in the 20th Century  3 hours
   - CPO 4643 Government and Politics of Russia  3 hours
   - PHM 3350 Russian Philosophy  3 hours
3. Electives (6 hours)
   - Approved electives include
     - EUH 4571 Russia to 1801  3 hours
     - EUH 4574 Russia in the 19th Century  3 hours
     - CPO 3614 Politics of Eastern Europe  3 hours
     - ECO 3707 International Economics  3 hours

Interested students should register for the minor with Dr. Richard Crepeau, Department of History, FA 551 (407) 823-2224. For further information about the major consult any of the above mentioned departments.

Bachelor of Science: Social Sciences

Contact Person: J. Boyle, FA 208, Phone (407) 823-2492

The Social Sciences program offers students an opportunity to become acquainted with the various fields of the Social Sciences and to better understand the relationships between those fields. Satisfactory completion of the program leads to the degree Bachelor of Science with a major in Social Sciences.

Degree Requirements
1. See Undergraduate Degree Requirements
2. See special college and/or department requirements
3. Required Courses None
4. Restricted Electives (48 hours)
   a. Choose one
      - POS 3703 Scope and Methods of Political Science  3 hours
      - PSY 3214 Research Methods (Psychology)  3 hours
      - SYA 3300 Research Methods (Sociology)  3 hours
   b. A minimum of 15 semester hours in each of four Social Science disciplines.
      The following are the required courses for each discipline selected.

Communication
   - RTV 4403 Radio, Television and Society  3 hours
   - JOU 3003 History of American Journalism
   - COM 3311 Communication as a Behavioral Science  3 hours
   
Economics
   - ECO 2013 Principles of Economics I  3 hours
   - ECO 2023 Principles of Economics II  3 hours

Political Science
   - POS 2041 American National Government  3 hours

Psychology
   - PSY 2013 General Psychology  3 hours
   - PPE 3003 Personality Theory  3 hours

Public Service Administration
   - PAD 3003 Introduction to Public Administration  4 hours
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<tr>
<td>PLA 3013</td>
<td>or Law and the Legal System</td>
<td>4</td>
</tr>
<tr>
<td>Sociology</td>
<td>or General Sociology</td>
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<tr>
<td>SYG 2000</td>
<td>or General Anthropology</td>
<td>3</td>
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</table>

5. Electives

| Total Semester Hours Required | 120 |

DEPARTMENT OF SOCIOLOGY AND ANTHROPOLOGY

Chair: TBA, FA 405, Phone (407) 823-2227
Faculty: Carey, A. Chase, D. Chase, Cook, Dees, Fabianic, Gay, D. Jones, Lynxwiler, Morris, Mustaine, Stearman, Wallace

The Department of Sociology and Anthropology offers a Bachelor of Arts in Sociology and in Anthropology. Students should consult with their advisor early in their academic careers to select an area of specialization within the Department or if they plan to pursue graduate work.

MINORS

The Department offers the following minors:

1. **Anthropology**
   - Required Courses: ANT 3211, ANT 3410, ANT 3422, ANT 3511; and a minimum of 9 semester hours of Anthropology. No more than 6 semester hours of transfer credit in anthropology will be accepted toward the minor, and no more than 6 semester hours of 1000/2000 credit can be applied. The minimum number of semester hours required is 21.

2. **Anthropology in Multicultural Studies**
   - This minor develops a more sophisticated understanding of the recent dilemmas of Hispanic and Native Rim cultures, sex and gender controversies in America and other societies, and the theoretical and practical issues of modern applied anthropology. The minor is especially appropriate for students majoring in political science, international business, or for any student seeking an enhanced understanding of contemporary cultural relations.
   - Required courses are ANT 2003 General Anthropology or ANT 3410 and five courses from the following:
     - ANT 3422 Peoples of the World 3 hours
     - ANT 3312 Ethnology of North American Indians 3 hours
     - ANT 3332 People and Culture of Latin America 3 hours
     - ANT 3360 Peoples of Asia 3 hours
     - ANT 3241 Magic, Ritual, and Belief 3 hours
     - ANT 3302 Sex, Gender, and Culture 3 hours
     - SYD 3700 Race and Ethnic Minorities in the U.S. 3 hours
   - Other courses may be substituted with the consent of the department chair.

3. **Sociology**
   - Required Courses: SYG 2000, SYO 3000; and a minimum of 12 semester hours of Sociology courses. No more than 6 semester hours of transfer credit will be accepted toward the minor, and no more than 6 semester hours of 1000/2000 credit can be applied. The minimum number of semester hours required is 18.

Bachelor of Arts: Sociology

Degree Requirements

The Sociology curriculum is designed to provide students a basic curriculum which emphasizes critical examination of various components of society. The purpose of the curriculum is to increase students' social awareness and ability to employ a sociological perspective to interpret social institutions and behavior. A minimum of 45 semester hours is required for a major.

1. See Undergraduate Degree Requirements
2. A minimum GPA of 2.0 for all courses used for a major or minor in Sociology.
3. Required Courses (21 hours)
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SYG 2000</td>
<td>General Sociology</td>
<td>3 hours</td>
</tr>
<tr>
<td>SYA 3110</td>
<td>Development of Social Thought or Modern Sociological Thought</td>
<td>3 hours</td>
</tr>
<tr>
<td>SYA 3120</td>
<td>Research Methods</td>
<td>4 hours</td>
</tr>
<tr>
<td>SYA 3300</td>
<td>Research Methods and Statistics</td>
<td>4 hours</td>
</tr>
<tr>
<td>SYA 3400</td>
<td>Social Change</td>
<td></td>
</tr>
<tr>
<td>SYP 3400</td>
<td>Sociological Social Psychology</td>
<td>3 hours</td>
</tr>
<tr>
<td>SYP 4000</td>
<td>Data Analysis (PR: SYA 3300 and SYA 3400)</td>
<td>4 hours</td>
</tr>
</tbody>
</table>

4. Restricted Electives - choose from the following (24 hours)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SYG 3010</td>
<td>Social Problems</td>
<td>3 hours</td>
</tr>
<tr>
<td>SYA 4650</td>
<td>Applied Sociology</td>
<td>3 hours</td>
</tr>
<tr>
<td>SYD 3410</td>
<td>Urban Sociology</td>
<td>3 hours</td>
</tr>
<tr>
<td>SYD 3700</td>
<td>Race and Ethnic Minorities in the United States</td>
<td>3 hours</td>
</tr>
<tr>
<td>SYD 3800</td>
<td>Sex Roles in Modern Society</td>
<td>3 hours</td>
</tr>
<tr>
<td>SYD 4020</td>
<td>Population</td>
<td>3 hours</td>
</tr>
<tr>
<td>SYO 3000</td>
<td>Modern Sociology</td>
<td>3 hours</td>
</tr>
<tr>
<td>SYO 3410</td>
<td>Sociology of Mental Illness</td>
<td>3 hours</td>
</tr>
<tr>
<td>SYO 3530</td>
<td>Social Stratification</td>
<td>3 hours</td>
</tr>
<tr>
<td>SYO 4100</td>
<td>Family Trends</td>
<td>3 hours</td>
</tr>
<tr>
<td>SYO 4250</td>
<td>Sociology of Education</td>
<td>3 hours</td>
</tr>
<tr>
<td>SYO 4300</td>
<td>Political Sociology</td>
<td>3 hours</td>
</tr>
<tr>
<td>SYO 4370</td>
<td>Sociology of Occupations and Professions</td>
<td>3 hours</td>
</tr>
<tr>
<td>SYO 4400</td>
<td>Medical Sociology</td>
<td>3 hours</td>
</tr>
<tr>
<td>SYP 3300</td>
<td>Collective Behavior</td>
<td>3 hours</td>
</tr>
<tr>
<td>SYO 3360</td>
<td>Social Organization and Human Relations</td>
<td>3 hours</td>
</tr>
<tr>
<td>SYP 3540</td>
<td>Sociology of Law</td>
<td>3 hours</td>
</tr>
<tr>
<td>SYP 3510</td>
<td>Sociology of Deviant Behavior</td>
<td>3 hours</td>
</tr>
<tr>
<td>SYP 3520</td>
<td>Criminology</td>
<td>3 hours</td>
</tr>
<tr>
<td>SYP 3530</td>
<td>Juvenile Delinquency</td>
<td>3 hours</td>
</tr>
<tr>
<td>SYP 3551</td>
<td>Sociology of Alcoholism</td>
<td>3 hours</td>
</tr>
<tr>
<td>SYP 3602</td>
<td>Sociology of Popular Music</td>
<td>3 hours</td>
</tr>
<tr>
<td>SYP 3650</td>
<td>Sociology and Sport</td>
<td>3 hours</td>
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<tr>
<td>SYP 3930</td>
<td>Sociology of Popular Culture</td>
<td>3 hours</td>
</tr>
<tr>
<td>SYP 4550</td>
<td>Sociology of Drug Abuse</td>
<td>3 hours</td>
</tr>
<tr>
<td>SYP 4730</td>
<td>Sociology of Aging</td>
<td>3 hours</td>
</tr>
</tbody>
</table>

Eligible students may enroll for 3 to 16 semester hours of Internship. Arrangements for Internship are coordinated by the Department.

5. Foreign Language
   Two semesters/proficiency required and either a third semester in the course OR one approved enhancement course.

6. Electives

Bachelor of Arts: Anthropology

Degree Requirements

Anthropology offers the Bachelor of Arts degree. In keeping with the holistic nature of the discipline, students are required to pursue a course of study which leads to a comprehension of all subfields of Anthropology. The recognized subfields of Anthropology are Cultural Anthropology, Archaeology, Physical Anthropology, and Linguistics. Area studies concerned with North American Indians, Mesoamerican Civilization, and Latin American Culture are available. Students majoring or minoring in Anthropology with sufficient course background may be provided an opportunity to participate in ongoing archaeological excavations associated with the Maya culture in the Central American country of Belize.

A minimum of 45 semester hours is required for a degree. All Anthropology courses are 3 semester hours with the exception of ANT 4124, which is 9 semester hours.

Two semesters proficiency of foreign language are required.
**Degree Requirements**

1. See Undergraduate Degree Requirements
2. Special college and/or department requirements
3. Required Courses
   
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANT 3211</td>
<td>Archaeology and the Rise of Human Culture</td>
<td>3</td>
</tr>
<tr>
<td>ANT 3410</td>
<td>Cultural Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>ANT 3511</td>
<td>The Human Species</td>
<td>3</td>
</tr>
<tr>
<td>ANT 3145</td>
<td>Archaeology of Complex Societies</td>
<td>3</td>
</tr>
<tr>
<td>ANT 3422</td>
<td>Peoples of the World</td>
<td>3</td>
</tr>
<tr>
<td>ANT 3610</td>
<td>Language and Culture</td>
<td>3</td>
</tr>
<tr>
<td>ANT 4084</td>
<td>Anthropological Method and Theory</td>
<td>3</td>
</tr>
</tbody>
</table>

4. Restricted Electives
   
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANT 3153</td>
<td>Archaeology of North America</td>
<td>3</td>
</tr>
<tr>
<td>ANT 3163</td>
<td>Mesoamerican Archaeology</td>
<td>3</td>
</tr>
<tr>
<td>ANT 3311</td>
<td>Indians of the Southeastern United States</td>
<td>3</td>
</tr>
<tr>
<td>ANT 3312</td>
<td>Ethnology of North American Indians</td>
<td>3</td>
</tr>
<tr>
<td>ANT 3313</td>
<td>Indians of the North American High Plains</td>
<td>3</td>
</tr>
<tr>
<td>ANT 3328</td>
<td>Maya Archaeology</td>
<td>3</td>
</tr>
<tr>
<td>ANT 3332</td>
<td>Peoples and Cultures of Latin America</td>
<td>3</td>
</tr>
<tr>
<td>ANT 3360</td>
<td>Peoples of the Far East</td>
<td>3</td>
</tr>
<tr>
<td>ANT 3363</td>
<td>Anthropology of Japan</td>
<td>3</td>
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</tbody>
</table>

Specialized Studies (Select 5 courses)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANT 3302</td>
<td>Sex, Gender, and Culture</td>
<td>3</td>
</tr>
<tr>
<td>ANT 3241</td>
<td>Magic, Ritual, and Belief</td>
<td>3</td>
</tr>
<tr>
<td>ANT 3432</td>
<td>Culture and the Individual</td>
<td>3</td>
</tr>
<tr>
<td>ANT 3262</td>
<td>Rural Society</td>
<td>3</td>
</tr>
<tr>
<td>ANT 3271</td>
<td>Law and Culture</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANT 3122</td>
<td>Archaeological Method and Theory</td>
<td>3</td>
</tr>
<tr>
<td>ANT 3141</td>
<td>The Emergence of Civilizations</td>
<td>3</td>
</tr>
<tr>
<td>ANT 3142</td>
<td>Old World Prehistory</td>
<td>3</td>
</tr>
<tr>
<td>ANT 3144</td>
<td>New World Prehistory</td>
<td>3</td>
</tr>
<tr>
<td>ANT 4124</td>
<td>Advanced Archaeological Fieldwork</td>
<td>9</td>
</tr>
<tr>
<td>ANT 4180</td>
<td>Seminar in Laboratory Analysis</td>
<td>3</td>
</tr>
</tbody>
</table>

5. Electives

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANT 4462</td>
<td>Medical Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>ANT 3541</td>
<td>Biobehavioral Anthropology</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Semester Hours Required** 120

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**DEPARTMENT OF STATISTICS**

Interim Chair: L. Hoffman, CCII 221, Phone (407) 823-2289

Faculty: Cutchins, Hoffman, Johnson, Nickerson, Pepe, Richardson, J. Schott, S. Schott, Somerville, M. Wang

The Department of Statistics offers courses and programs which lead to a Bachelor of Science in Statistics, a minor in statistics, and a Master of Science in Statistical Computing. (See the Graduate Studies catalog for a description of the M.S. in Statistical Computing.)

The undergraduate programs in statistics are designed to serve (1) students who wish to pursue careers in statistics after having completed a baccalaureate degree; (2) students who wish to continue their education in graduate or professional schools; and (3) students who need to use statistics as tools in their specialty areas.

In order to serve such a wide variety of students, the courses and programs in the Department of Statistics have developed along several lines. There are the usual service courses in elementary statistics along with strong programs in the upper division in statistical methods, statistical theory, and statistical computing.
A limited number of assistantships are available for qualified graduate and undergraduate students.

MINOR
The Department of Statistics offers a minor (with a minimum of 18 hours). Required Courses: STA 2023 or STA 3032 or equivalent; STA 4163, STA 4164, and one of the following: STA 4222 or STA 4502. A grade of C or higher is required in each course counting toward a minor.

Restricted Electives: Six or more hours from STA courses numbered 3000 or higher. (Credit from STA 3023 or STA 3032 or the equivalent may not be used as a restricted elective.) All courses except STA 2023 or STA 3032 must be taken from the Department of Statistics at UCF unless substitutes are approved by the Department Standards Committee.

Bachelor of Science: Statistics

Degree Requirements
1. See Undergraduate Degree Requirements
2. See special college and/or department requirements
   a. All statistics courses except STA 3023, STA 3032, and those protected by the Florida Common Course Numbering system must be taken from the Department of Statistics at UCF. Substitution of other transfer work must be approved by the Departmental Standards Committee.
   b. A Statistics major must take one course from one group (A or B) and two courses from the other group, with at least one laboratory in each group. Any additional science course in the College of Arts and Sciences of any level or any course in the College of Health numbered 3000 or higher will count as the fourth required course.
   Group A
   BSC 2010C
   BSC 2011C
   Group B
   CHM 2045
   CHM 2046 and CHM 2046L
   PHY 2053C
   PHY 2054C

   (NOTE: If both CHM 2046 and CHM 2046L are taken, they will only count as one course in satisfying the above requirement. CHM 2046L by itself will not count as a course.)
   c. A grade of "C" or higher is required in all STA courses counting towards a statistics major.
   d. A 2.0 average or higher is required in all computer science and mathematics courses that count toward a statistics major.
3. Required Courses
   (49 hours)
   STA 2023 Statistical Methods I 3 hours
   STA 4102 Computer Processing of Statistical Data 3 hours
   STA 4163 Statistical Methods II 3 hours
   STA 4164 Statistical Methods III 3 hours
   STA 4321 Statistical Theory I 3 hours
   STA 4322 Statistical Theory II 3 hours
   COT 4500 Numerical Calculus 3 hours
   COP 2500 Programming I 3 hours
   COP 2501 Programming II 3 hours
   MAC 3311 Calculus with Analytic Geometry I 4 hours
   MAC 3312 Calculus with Analytic Geometry II 4 hours
   MAC 3313 Calculus with Analytic Geometry III 4 hours
   MAS 3106 Linear Algebra 4 hours
   or
   MAS 3105 Elementary Linear and Matrix Algebra 4 hours
   COT 3100 Introduction to Discrete Structure 3 hours
   or
   MHF 2300 Logic and Proof in Mathematics 3 hours
   ENC 3241 Technical Report Writing 3 hours
   Three from among the following five: 9 hours
   STA 3096 Statistical Graphics 3 hours
STA 4202 Design of Experiments 3 hours
STA 4222 Sample Survey Methods 3 hours
STA 4502 Nonparametric Statistical Methods 3 hours
STA 4664 Statistical Quality Control 3 hours

4. Restricted Electives
A minimum of 6 hours selected from upper-division or graduate statistics, mathematics, or computer science courses. (MAC 3233, 3253, 3254; all MAE courses; and MHF 4404 may not be used.)
Selected courses in engineering may be used but must first be approved by the Statistics Department Standards Committee.

5. Electives variable
The number of hours depends on the courses chosen to satisfy university requirements.

Total Semester Hours Required 120 hours

DEPARTMENT OF THEATRE

Chair: D.W. Seay, THE 120, Phone (407) 823-2861.
Faculty: Call, Carson, Major, Rinaldi, Rusnock, Seay, Smith, Kopf, Siegfried, Ye.

The Department of Theatre seeks to develop theatre artists of the highest quality by providing a select number of undergraduate students with the training, education, and experiences necessary for the successful pursuit of professional careers in theatre arts. In support of this mission and the liberal arts goals of the College of Arts and Sciences, the department seeks to provide its students with the knowledge and skills necessary to live full, rewarding and productive lives. Offering both the Bachelor of Arts and the Bachelor of Fine Arts degrees, the Department of Theatre undertakes to develop and graduate theatre artists who are sensitive, aware, and total human beings. Through its public performance programs, the department endeavors to serve as a cultural resource for the University, the community and the central Florida region. Striving to provide its students with a competitive edge, the department employs a faculty and staff of artists/teachers who work intensely with students in the classroom and in production. To supplement this education and training, professional guest artists are brought to the campus to work in production and in the classroom. Before graduation, B.F.A. students are required to complete a professional theatre internship thus providing them with a unique and invaluable introduction to the real world of professional theatre. In all its endeavors, the Department of Theatre strives to create and maintain a professional environment necessary for the continued growth and development of its students, faculty, and staff.

Special Entrance Requirements
Entrance into the majority of UCF theatre classes for both B.A. and B.F.A. theatre majors is made by the departmental faculty on the basis of departmental interview, audition and portfolio review. Only those students who have successfully undergone this process are admitted into restricted theatre classes. Students wishing to pursue a performance major, in addition to an interview, are required to prepare and perform two monologues of contrasting styles not to exceed a total of three minutes. Students of performance interested in musical theatre should prepare a ballad in addition to their monologues. Students wishing to pursue a technical theatre/design major, in addition to an interview, must undergo a portfolio review. The portfolio should contain no more than fifteen examples of the student's best work representing a variety of mediums and presented in a professional manner. Three dimensional pieces can be submitted in slide format. For more complete information concerning entrance auditions and portfolios, please contact the Department of Theatre prior to enrolling at UCF.

Course Restrictions
With the exception of THE 1020, 1020H, 1925, 2300, 2925, 2926, 3110, 3111, 3305, TPP 3190, 3191, 3197, 4192, 4193, TPA 3197, 3290, 3291, and 4293 theatre courses are restricted to theatre majors. Other courses are further restricted to B.F.A. theatre majors. Waiver of restrictions must be approved by the Department Chair.
Theatre Participation

Because participation in productions is the best way to experience maximum artistic development, the department strongly recommends that all theatre students participate, in some capacity, on all main-stage productions. Though participation on all departmental productions is not required, B.A. and B.F.A theatre majors are required to participate on a minimum of two departmental productions during both the Fall and Spring terms. Participation in some capacity on the opening production of the Fall term of each academic year is mandatory for all theatre majors. Successful completion of the theatre degree is contingent upon a student's continuing participation in departmental productions. A student who fails to successfully satisfy the participation requirement, will be placed on probation for one (1) semester. Continued failure to successfully participate may result in the student being dropped as a Theatre major. For further information concerning Theatre Participation, consult the Student Handbook.

FRESHMAN AND SOPHOMORE B.F.A. EVALUATIONS

Evaluations are available to all theatre students but are required of B.F.A. students who wish to continue in the B.F.A. degree program. The performance theatre faculty and staff and the technical theatre/design faculty and staff will meet privately with each student in his or her respective areas to review and provide objective evaluations of each student's strengths and weaknesses. Following each evaluation, a recommendation will be made to each student regarding their continuation in the B.F.A. degree program. For further information concerning B.F.A. evaluations, consult the departmental Student Handbook.

MINOR

The Department of Theatre offers a minor in General Theatre. The requirements are as follows:

1. A successful interview and audition or portfolio review.
2. A minimum of 28 semester hours of credit to include the following or their equivalent: THE 1020, 1925, 2300, 2925, 2926, 3110, 3111, 3305, TPP 2100, TPA 2200, and 2204.
3. A minimum of 18 of these required credits, including TPA 2200, 2204, THE 2925, and 2926, must be completed at UCF.
4. Participation on a minimum of two (2) departmental productions during both the Fall and Spring terms for four (4) semesters.
5. A minimum grade of "C" (2.00) in all theatre courses. No "D" grades in theatre courses from other institutions are transferable.

Theatre Core Curriculum

The theatre core curriculum is required of all B.A. and B.F.A. theatre majors. (30 hours)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>THE 1020</td>
<td>Theatre Survey</td>
<td>3</td>
</tr>
<tr>
<td>THE 1925</td>
<td>Basic Technical Skills</td>
<td>2</td>
</tr>
<tr>
<td>TPP 2100</td>
<td>Introduction to Acting</td>
<td>3</td>
</tr>
<tr>
<td>TPA 2200</td>
<td>Stagecraft I</td>
<td>3</td>
</tr>
<tr>
<td>TPA 2204</td>
<td>Stagecraft II</td>
<td>3</td>
</tr>
<tr>
<td>THE 2300</td>
<td>Script Analysis</td>
<td>3</td>
</tr>
<tr>
<td>THE 2925</td>
<td>Theatre Practicum I</td>
<td>1</td>
</tr>
<tr>
<td>THE 3110</td>
<td>Theatre History I</td>
<td>3</td>
</tr>
<tr>
<td>THE 3111</td>
<td>Theatre History II</td>
<td>3</td>
</tr>
<tr>
<td>THE 3305</td>
<td>Survey of Dramatic Literature</td>
<td>3</td>
</tr>
<tr>
<td>TPP 3310</td>
<td>Directing I</td>
<td>3</td>
</tr>
</tbody>
</table>

BACHELOR OF ARTS DEGREE

The Bachelor of Arts Degree is offered to meet the needs of those students who do not plan to pursue the theatre as a profession upon graduation. Such students may be interested in pursuing graduate studies in theatre or they may be interested in the theatre solely as a means of obtaining an excellent liberal arts education. The B.A. degree is a 46-hour major offered in general theatre only. Students need to work closely with their advisors in selecting courses.
B.A. Degree: General Theatre

1. See Undergraduate Degree Requirements.
2. Most theatre courses have prerequisites and are sequential. Waivers must be approved by the Department Chair.
3. See special college and/or department requirements. Students in theatre courses must achieve a grade of "C" (2.00) or higher to continue in a course sequence or to advance to the next higher level of study. Students receiving a grade of "D" in a required theatre course must repeat the course. Departmental residency requirements require that a minimum thirty semester hours of regularly scheduled courses be completed with the UCF Department of Theatre.
4. Students must maintain a minimum "C" (2.00) overall Theatre GPA to continue in the major.
5. Required courses (see Theatre Core Curriculum) (30 hours)
6. Restricted electives.
   a. Theatre Production/Performance 4 hours
   b. Theatre Electives selected from courses open to B.A. majors 12 hours
7. Foreign Languages Requirement for B.A. is proficiency or two semesters (30 hours)
8. Electives, selected in consultation with a theatre advisor, are to be primarily from upper division courses. Suggested Courses in Dramatic Literature ENL 4330, 5176, and 5335 (12 hours)

BACHELOR OF FINE ARTS DEGREE

The Bachelor of Fine Arts Degree is offered to meet the needs of those students who, upon graduation, plan to pursue a specialized career in professional theatre. The B.F.A. degree is an 80 hour major which provides the student with a very structured and intensive career preparation in either performance or technical theatre/design. The B.F.A. is also an excellent degree for students who are interested in pursuing graduate studies in theatre. Work in the B.F.A. degree program requires energy and dedication. As B.F.A. theatre students work 35-55 hours per week, part-time study or outside work is generally impossible. B.F.A. standards are high, both for admission and for continuation in the program. Casting, crew and design assignments are regulated to serve the artistic growth of students coordinating production experience with classroom exploration.

B.F.A. Degree Requirements

1. See Undergraduate Degree Requirements.
2. Waiver of course prerequisites and sequencing must be approved by the Department Chair.
3. See special college and/or department requirements. B.F.A. students in theatre courses must achieve a grade of "C" (2.00) or higher to continue in a course sequence or to advance to the next higher level of study. Students receiving a grade of "D" in a required theatre course must repeat the course. Departmental residency requirements require a minimum of sixty (60) semester hours of regularly scheduled courses be successfully completed with the UCF Department of Theatre.
4. B.F.A. theatre majors must maintain a minimum "B" (3.00) overall Theatre GPA to continue in the B.F.A. degree program. In addition to maintaining a minimum 3.00 Theatre GPA, continuation in the B.F.A. requires a positive annual evaluation by the faculty and their recommendation for continuation in the program. Failure to meet the above criteria will, under normal circumstances, require the student to change to a B.A. degree program.
5. Required Theatre Courses (see Theatre Core Curriculum) (30 hours)
6. Specialization requirements (see below) (50 hours)
7. Additional Restricted Electives (see department advisor) (9 hours)
9. Electives, selected in consultation with a theatre advisor, are to be primarily from upper division courses. Suggested Courses in Dramatic Literature: ENL 4330, 5176, 5335

Total Semester Hours Required 129 hours
AREAS OF SPECIALIZATION

1. PERFORMANCE
   a. Performance Specialization
      TPP 2170, 3172, 3190, 3191, 3510, 3511, 3712, 3730, 4140, 4142, 4192, 4193, 4260, 4531, 4940, TPA 2248, and THE 2926
      (43 hours)
   b. Restricted Electives
      TPP 3197, 4311, TPA 3601, 3249, and 4400
      (5 hours)
   c. Music
      MVV 1111 and 1211
      (2 hours)

2. TECHNICAL THEATRE/DESIGN
   a. Technical Theatre/Design Specialization
      TPA 3043, 3060, 3061, 3077, 3220, 3221, 3230, 3250, 3251, 3290, 3291, 3601, 4049, 4293, 4940, and THE 2926
      (39 hours)
   b. Restricted Electives
      TPA 2248, 3197, 3249, 4061, and 4400
      (5 hours)
   c. Art
      Art 2300, 2301C, 2201C, 2202C, or 3330C
      (6 hours)

3. STAGE MANAGEMENT
   a. Stage Management Specialization
      TPA 2248, 3221, 3060, 3220, 3230, 3290, 3291, 3601, 4293, 4940, THE 2926, TPP 2170, 3510, 3511, 2710, 3711, and 3172
      (40 hours)
   b. Restricted Electives
      TPA 3197, 3249, 3061, 4400, TPP 3197, 3250, 3251, 4311
      (7 hours)
   c. Art
      Art 2300, 2301C, 2201C, 2202C or 3330C
      (3 hours)

WOMEN’S STUDIES PROGRAM
Director: Carole E. Adams. HFA 524, Phone (407) 823-3258

The Women’s Studies program offers an interdisciplinary minor, but not a major. The program cooperates with several departments to offer the minor, which examines women's situation and contributions in past and present societies, women’s issues, and theories concerning women and gender.

1. Required course
   WST 3930 Introduction to Women’s Studies 3 hours

2. Elective Courses
   AMH 3560 Women in American History 3 hours
   ANT 3302 Sex, Gender and Culture 3 hours
   ARH 4458 Women and Art in 20th Century America 3 hours
   ART 4892 Women in Art 3 hours
   CCJ 4670 Women and Crime 3 hours
   ENL 4932 Gender and the Medieval Text 3 hours
   EUH 4932 Women in European Society 3 hours
   FIL 4932 Women in Film 3 hours
   HSC 3930 Women and Health 3 hours
   LIT 3383 Women in Literature 3 hours
   MUL 3930 Women Composers 3 hours
   PHM 4123 Feminist Theory 3 hours
   PUP 4323 Women and Politics 3 hours
   SOP 3742 Psychology of Women 3 hours
   SOW 3930 Social Work and Women 3 hours
   (12-15 hours)

3. Restricted Elective Courses
   AML 3930 Harlem Renaissance 3 hours
   AML 4261 Literature of the South 3 hours
   (0-3 hours)
LIT 4354 Ethnic Literature in the U.S. 3 hours
LIT 4932 Emily Dickinson 3 hours
SOP 3772 Sexual Behavior 3 hours
SYD 3800 Sex Roles in Modern Society 3 hours
SYD 4100 Family Trends 3 hours
WST 3930 Research in Women and Gender 3 hours

Other courses as approved by the Women's Studies advisor.

Semester Hours Required in the program 18 hours
COLLEGE OF BUSINESS ADMINISTRATION

UNDERGRADUATE PROGRAMS
Accounting (BSBA)
Economics (BSBA)
Finance (BSBA)
General Business Administration (BSBA)
Hospitality Management (BSBA)
Management (BSBA)
Marketing (BSBA)

GRADUATE PROGRAMS*
Accounting (MSA)
Applied Economics (MAE)
Business Administration (MBA, Ph.D.)
Taxation (MST)

*See the Graduate catalog for information.

Recent legislation has mandated changes in program admission prerequisites, program length, and course levels. This document may not include the final versions of these changes. See your college advisor for current information.
The mission of the College of Business Administration at the University of Central Florida is to provide quality business education programs, at the undergraduate, graduate, and executive levels, to the citizens of the state of Florida and to selected clientele nationally and internationally. In delivering these programs, the College places primary emphasis on excellent teaching and research with a strong commitment to developing mutually supportive relationships with the business community of Central Florida.

In pursuit of its mission, the College of Business Administration affirms its commitment to the University’s focus on excellence and accent on the individual. Furthermore, the College pledges to deliver innovative and progressive programs to its clientele, and a commitment to service in the community, not only from its faculty but also its students. As the College approaches the twenty-first century, it has adopted “Driven by Excellence” as a motto and guiding force in achieving its goals and objectives. All undergraduate and graduate programs are accredited by the American Assembly of Collegiate Schools of Business (AACSB).

Admission to the University of Central Florida does not imply admission to the College of Business Administration. Students will only be allowed to enroll in the 3000/4000 level courses taught by the College of Business Administration after they have been admitted to the College.

Admission to the College will be granted when the following are complete:
1. Completion of the University General Education program.
2. a. Completion of ENC 1101, ENC 1102 and MAC 1104 with a minimum grade of "C".
   b. Completion of ACG 2021 and ACG 2071 (or ACG 2023) with a minimum grade of "C".
   c. Completion of ECO 2013 and ECO 2023 with a minimum grade of "C".
   d. Students must demonstrate competency in micro-computer applications during their first semester in College of Business Administration courses. Students who fail to demonstrate competency will not be permitted to continue enrollment in the business program.

Students who otherwise meet the University admission requirements, such as entering freshmen and transfer students, will be placed in a Business Administration pending category until they meet the requirements set forth above. Grades of "D" will not transfer into the program. Each student should attend orientation for academic advising and should meet with an academic counselor in the College to outline a program of study.

Attendance at the first meeting of any College of Business course is mandatory. Students not in attendance at the first meeting may be dropped from the course. It is the responsibility of the student to take whatever steps are necessary to determine if they have been officially dropped from a course. This does not remove the student's responsibility for dropping courses they do not intend to complete.

The degree Bachelor of Science in Business Administration with the following majors is offered by the College of Business Administration:

- Accounting
- Economics
- Finance
- General Business Administration
- Hospitality Management
- Management
- Marketing
Common Body of Knowledge
Required for All Business Majors

First Semester:
- GEB 3031* Cornerstone* (*Must be taken in first semester of enrollment in the College of Business Administration)
- ECO 3401 Quantitative Business Tools I
- BUL 3130 First or subsequent semesters depending on major:
- ECO 3411 Legal & Ethical Environments of Business
- FIN 3403 Business Finance
- MAN 3025 Quantitative Business Tools II
- MAR 3023 Management of Organizations
- ECO 3411 Quality and Productivity Management
- MAN 3023 Marketing

Last Semester:
- GEB 4361 Business in the International Environment
- MAN 4720 Strategic Management

Grade Point Average Requirements
For graduation the student must have maintained a minimum 2.0 GPA in course work taken in the College of Business Administration and a minimum 2.0 GPA in the course work required in the major, except in Accounting, Finance and Marketing where a "C" or better is required in each course and a minimum 2.0 is required overall.

Student Load
A student who is enrolled in 16 semester hours of course work is considered to be carrying a normal academic load. Students in the College of Business Administration desiring to take more than 16 hours of course work must obtain permission from the College.

Community/Junior College Transfers
1. Admission requirements can and do vary among the business and accounting programs at the ten universities comprising the State University System. To ensure that they have met all prerequisite course eligibility requirements, transfer students from Florida community colleges should complete the following courses as part of their Associate of Arts degree: ACG 2021 (or ACG 2001 and ACG 2011), ACG 2071, ECO 2013, ECO 2023, MAC 2233, STA 2023, STA 2023, STA 2023 (or QMB 2100) and the relevant computer applications course. At UCF, students who have completed MAC 2233 and STA 2023 will be waived from ECO 3401 Business Quantitative Tools I. Students who have completed either MAC 2233 or STA 2023, but not both, must take ECO 3401. Completion of these courses will satisfy all prerequisite course requirements for all business and accounting degree programs and will ensure that a student will receive further consideration for admission.
2. Subject to the general grade and residence requirements, credit will be granted for transferred course work equivalent to that required in UCF's Business program.
3. Florida Public Community College students are advised to complete the Associate of Arts Degree including:
   a) the general education requirements;
   b) the one year Accounting and Economics sequence; and College Algebra.
4. Professional courses should not be taken at a community/junior college in the areas of Management, Marketing, Real Estate, or Finance. These professional areas are third and fourth year course areas in the College of Business Administration and cannot be satisfied with community/junior college courses.
5. A minimum of 12 semester hours must be completed at UCF within each individual major.

Minor - International Business (Restricted to Business Majors)
The College of Business Administration offers a minor in International Business consisting of 18 semester hours.
Required Courses: GEB 4361, ECO 3703, FIN 4604, MAR 4156 or MAN 4600; Electives: 6 hours of the following courses: ANT 3410, ECS 4003, ECS 4013, GEO 3470, INR 4035, INR 4401, INR 4224, INR 4243; Special Topics Seminars in International Business; 3000/4000 level foreign language course.

Minor (Restricted to Non-Business Majors)

The College of Business Administration offers a minor consisting of 24 semester hours. (Nine semester hours of upper division business courses must be completed at UCF). Students are required to earn a "C" or better in each course.

Required courses: ACG 2021, 2071, or ACG 2023; ECO 2023, 2013; FIN 3403; MAN 3025; MAR 3023; one 3000/4000 level business course elective taught by the College of Business Administration. A GPA of 2.0 is required for each course and overall. GEB 3004 may not be used as the business course elective.

See also: Florida Tilburg Program (for Business Majors) listed under International Studies and Programs

SCHOOL OF ACCOUNTING

Director: A. Judd, BA 437, Phone (407) 823-2871
Assistant to the Director: L. Mahoney, BA 438, Phone (407) 823-5809
Faculty: Anderson, Bailey, Bandy, Evans, Goldwater, Hunt, Johnson, Judd, Kelihier, Klintworth, Phillips, Potts, Robertson, Roush, J. Salter, M. Salter, Savage, Veit, J. Welch, Zarzeski

OBJECTIVES OF ACCOUNTING PROGRAMS

The objective of the baccalaureate program with a concentration in accounting is to provide basic conceptual accounting and business knowledge as a foundation for accounting career development.

Bachelor of Science in Business Administration: Accounting

Degree Requirements

1. Completion of all University Undergraduate Degree requirements and all Common Body of Knowledge requirements in the College of Business (except BUL 3130 which is satisfied by taking BUL I and II).

2. Special qualifications for satisfying this program's requirements are:
   A. Students wanting to major in Accounting must apply for admission to the major.
   B. Within the College of Business Administration the first day of class is mandatory.
   C. A minimum grade of "C" must be earned in each accounting, business law, and tax course completed. Principles of Financial Accounting and Principles of Managerial Accounting are included under this rule.
   D. Students are allowed a maximum of three course repetitions during their program of study leading to the bachelors degree, including repetitions of courses from which they have withdrawn. This requirement applies to upper division accounting, tax, and business law courses only.
   E. A transfer student to this program must:
      1) take a minimum of twelve (12) semester hours in accounting at UCF as approved by the Director of the School of Accounting.
      2) have credit for a course in each of the following areas:
         a) English communication arts including written composition
         b) Oral expression
         c) Behavioral science such as psychology, anthropology, and sociology
         d) Humanities
         e) Political environment of business and society such as political science, public administration, and ethics.
         f) Students must demonstrate computer proficiency. All College of Business Administration students must demonstrate computer proficiency by completion of the CBA Computer Proficiency Examination. Accounting majors must also complete CGS 3000.
3. Required Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACG 3101</td>
<td>Intermediate Financial Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>ACG 3111</td>
<td>Intermediate Financial Accounting II</td>
<td>3</td>
</tr>
<tr>
<td>ACG 3361</td>
<td>Cost Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>ACG 3501</td>
<td>Fin ACG for Governmental and Nonprofit Org</td>
<td>3</td>
</tr>
<tr>
<td>ACG 4401</td>
<td>Accounting Systems I*</td>
<td>3</td>
</tr>
<tr>
<td>TAX 4001</td>
<td>Federal Income Tax I</td>
<td>3</td>
</tr>
<tr>
<td>ACG 4203</td>
<td>Advanced Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ACG 4651</td>
<td>Auditing</td>
<td>3</td>
</tr>
<tr>
<td>BUL 3320</td>
<td>Business Law I</td>
<td>3</td>
</tr>
<tr>
<td>BUL 3321</td>
<td>Business Law II**</td>
<td>3</td>
</tr>
</tbody>
</table>

4. Electives: As necessary to result in 120 total credit hours.

Total Semester Hours Required: 120

* CGS 3000 is a prerequisite for Accounting Systems.
** Transferable only from senior academic institutions.

CPA EXAMINATION REQUIREMENTS

Effective August 31, 1983, Florida Law states that to qualify to sit for the CPA exam, one must possess thirty (30) additional semester hours of credit beyond the minimum requirements for the baccalaureate degree. In addition to this overall educational requirement, the following specific criteria also apply:

- 36 hours in accounting beyond elementary, including at least:
  - 12 hours in financial and cost accounting
  - 6 hours in auditing and internal auditing
  - 6 hours in tax
  - 39 hours in general business, including at least six hours of business law.

Because of these increased educational requirements, no experience or additional course work is needed for certification. To satisfy the necessary coursework required by the law, the School of Accounting offers the Master of Science in Accounting (MSA) and the Master of Science in Taxation (MST) degree programs. Please see the graduate catalog for program requirements.

DEPARTMENT OF ECONOMICS

Interim Chair: B. Rungeling, BA 325, Phone (407) 823-3266
Faculty: Agarwal, Braun, Co, Day, Gallet, Gibbs, Hoffer, D. Hosni, Kilbride, List, T. Martin, McHone, Otsuka, Pennington, Raffa, Rungeling, Soskin, White, Xander

The Department of Economics participates in two undergraduate degree programs: a BSBA degree in the College of Business Administration and a BA degree in the College of Arts and Sciences. The purpose of the College of Business Administration economics major is to provide students with a professional business background that prepares them for careers in private business and government. The purpose of the economics major in the College of Arts and Sciences is to provide a broad-based liberal arts background that can serve as a strong foundation for further graduate studies in law, social sciences, and other fields or as training for careers in politics, teaching, research, social service, and other areas. The goal of both programs is to enable students to better understand the economic and non-economic issues that are confronted in their jobs and their private lives and to provide the analytical skills that will allow them to resolve these issues. Students interested in a BA in Economics should refer to the Economics Major in the College of Arts and Sciences.

MINOR In Economics (For Non-Business Administration majors)

Required Courses: ECO 3101, 3203, 3411. These requirements are in addition to the prerequisites ECO 2013 and 2023.

Elective Courses: Three courses from the following: ECO 3233, 3703, 3622, 3723, 4303, 4412, 4504; ECP 3004, 3203, 3424, 3433, 4403, 4603, 4703; ECS 4003, 4013, 4303.
Bachelor of Science in Business Administration: Economics

Degree Requirements
1. Completion of all University Undergraduate Degree requirements and all Common Body of Knowledge requirements in the College of Business.
2. Special college and/or department requirements:
   A. Students wanting to major in Economics must apply for admission to the major.
   B. Within the College of Business Administration the first day of class is mandatory. Final exams will be given during Exam Week.
   C. A transfer student to this program must take a minimum of twelve (12) semester hours in economics at UCF.
3. Required Courses
   - ECO 3101: Intermediate Price Theory 3 hours
   - ECO 3203: Aggregate Economic Conditions Analysis 3 hours
4. Restricted Electives
   All economics majors will be required to take five (5) electives from the following for a total of twenty-one (21) hours beyond the Common Body of Knowledge.
   - ECO 3233: Money and Banking 3 hours
   - ECO 3622: American Economic History 3 hours
   - ECO 3703: International Economics 3 hours
   - ECO 3723: International Commercial Policy 3 hours
   - ECO 4303: History of Economic Thought 3 hours
   - ECO 4412: Economic Statistics and Econometrics 3 hours
   - ECO 4504: Economics of the Public Sector 3 hours
   - ECP 3004: Seminar in Current Economic Topics 3 hours
   - ECP 3203: Contemporary Labor Economics 3 hours
   - ECP 3433: Transportation Economics 3 hours
   - ECP 4403: Business, Govt & Indust Org 3 hours
   - ECP 4603: Urban and Regional Economic Problems 3 hours
   - ECP 4703: Managerial Economics 3 hours
   - ECS 4003: Comparative Economic Systems 3 hours
   - ECS 4013: Economic Development 3 hours
   - ECS 4303: Economics of European Integration 3 hours
5. Electives: As necessary to result in 120 total credit hours

Total Semester Hours Required 120

DEPARTMENT OF FINANCE
Chair: J. M. Cheney, BA 420, Phone (407) 823-3575
Faculty: Atkinson, Borde, Byrd, Cheney, Clayton, Gilkeson, Millican, Modani, Park, Phelps, Porter, Raff, Scott, Weaver

The program in finance is designed to provide the student with broad knowledge in finance, including business finance, investments, financial institutions, international finance, risk management and insurance, and real estate. The program provides the student with the theoretical background and tools of analysis required for making effective financial decisions.

The study of finance prepares the student for careers in business financial management.

Bachelor of Science in Business Administration: Finance

Degree Requirements
1. Completion of all University Undergraduate Degree requirements and all Common Body of Knowledge requirements in the College of Business.
2. Special college and/or department requirements:
   A. The Finance Major Curriculum consists of a total of 27 semester hours in addition to FIN 3403. Students are required to earn a grade of "C" or better in FIN 3403 and all other classes taken toward the major and to have a 2.0 overall average.
   B. FIN 3403 Business Finance, is prerequisite to all finance courses except FIN 3100, REE 3043, & REE 4433.
C. FIN 3100 (Personal Finance and Investments) and REE 3043 (Fundamentals of Real Estate) are not usable for credit by Finance Majors.

D. Students wanting to major in Finance must apply for admission to the major.

E. Within the College of Business Administration the first day of class is mandatory. Final exams will be given during Exam Week.

F. A transfer student to this program must take a minimum of twelve (12) semester hours in finance at UCF.

3. Required Courses.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>FIN 3303</td>
<td>Financial Markets</td>
<td>3</td>
</tr>
<tr>
<td>FIN 3404</td>
<td>Intermediate Corporate Finance</td>
<td>3</td>
</tr>
<tr>
<td>FIN 3453</td>
<td>Financial Models</td>
<td>3</td>
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<tr>
<td>FIN 3504</td>
<td>Investment Analysis</td>
<td>3</td>
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Select two of the following:

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIN 4324</td>
<td>Management of Financial Institutions</td>
<td>3</td>
</tr>
<tr>
<td>FIN 4514</td>
<td>Portfolio Analysis and Management</td>
<td>3</td>
</tr>
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<td>FIN 4503</td>
<td>Speculative Financial Markets</td>
<td>3</td>
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<tr>
<td>FIN 4604</td>
<td>International Financial Management</td>
<td>3</td>
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<tr>
<td>FIN 4424</td>
<td>Advance Topics in Financial Management</td>
<td>3</td>
</tr>
<tr>
<td>REE 4303</td>
<td>Real Estate Investment Analysis</td>
<td>3</td>
</tr>
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4. Restricted Electives

   d) Select three of the following:

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>ACG 3101</td>
<td>Intermediate Financial Accounting I</td>
<td>3</td>
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<tr>
<td>ACG 3111</td>
<td>Intermediate Financial Accounting II</td>
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<tr>
<td>ACG 3361</td>
<td>Cost Accounting</td>
<td>3</td>
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<tr>
<td>ACG 4401</td>
<td>Accounting Systems I</td>
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<tr>
<td>ECO 4412</td>
<td>Economic Statistics and Econometrics</td>
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<tr>
<td>ECP 4403</td>
<td>Bus, Government, &amp; Industrial Organizations</td>
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</tr>
<tr>
<td>ECP 4603</td>
<td>Urban and Regional Economic Problems</td>
<td>3</td>
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<td>ECP 4703</td>
<td>Managerial Economics</td>
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<td>FIN 4604</td>
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<td>FIN 4424</td>
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<td>FIN 4906</td>
<td>Independent Study</td>
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<td>FIN 4941</td>
<td>Internship</td>
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<td>REE 4303</td>
<td>Real Estate Investment Analysis</td>
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<td>REE 4103</td>
<td>Real Estate Appraisal</td>
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<td>REE 4204</td>
<td>Real Estate Finance</td>
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<tr>
<td>REE 4433</td>
<td>Real Estate Law</td>
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<tr>
<td>RMI 3011</td>
<td>Principles of Risk and Insurance</td>
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</tr>
<tr>
<td>TAX 4001</td>
<td>Federal Income Tax I</td>
<td>3</td>
</tr>
</tbody>
</table>

*No class may be used more than once

5. Electives: As necessary to result in 120 total credit hours

| Total Semester Hours Required | 120 |

GENERAL BUSINESS ADMINISTRATION

This option allows students to develop a general program of study which will satisfy career objectives not provided for by the specialized areas of concentration. To pursue this option, students should seek advisement in the Department of Economics. An academic advisor will be assigned to assist each student in developing a meaningful program of study.

Bachelor of Science in Business Administration:

General Business Administration

Degree Requirements

1. Completion of all University Undergraduate Degree requirements and all Common Body of Knowledge requirements in the College of Business.

2. Special college and/or department requirements
A. Students wanting to major in General Business Administration must apply for admission to the major.
B. Within the College of Business Administration the first day of class is mandatory. Final exams will be given during Exam Week.
C. A transfer student to this program must take a minimum of twelve (12) semester hours in the major at UCF.

3. One (1) additional course beyond the Common Body of Knowledge in Finance (FIN prefix) and Marketing (MAR prefix) (one course from each discipline). The one (1) required Finance course must be one of the four courses listed below. One or more of the remaining three courses in the list can be selected as restricted electives for students majoring in General Business. Other upper level Finance courses are also available as restricted electives for those students that would like to specialize in investments, corporate finance, institutions, or real estate. Please see a Finance Department advisor. (FIN 3403 is prerequisite for these four classes.)

- FIN 3303 Financial Markets
- FIN 3404 Intermediate Corporate Finance
- FIN 3453 Financial Models
- FIN 3504 Investment Analysis

4. Restricted Electives: A minimum of six (6) additional courses from at least three (3) different departments (Accounting, Economics, Finance, Hospitality Management, Marketing, Management, Marketing) taught in the College of Business Administration.

5. Students wishing to complete the General Business major as a second major within the College of Business Administration must complete 24 hours in the second major beyond the courses required for the first major.

6. Electives: As necessary to result in 120 total credit hours

DEPARTMENT OF HOSPITALITY MANAGEMENT

Chair: R. Ford, BA 409, Phone (407) 823-2188
Faculty: Ashley, Bach, Chesser, Ellis, Ford, LeBruto, Milman, Pizam, Quain

The hospitality industry currently represents the second largest employer in the United States and is the major part of the rapidly growing services sector of the economy. Because of its unique location in the premier tourist destination in the world, the Department of Hospitality Management is ideally situated to prepare students for managerial careers in the hospitality industry. Whether the student is interested in entering lodging, food service, travel and tourism, or conventions and destination services management, the Orlando and Central Florida area offers extraordinary opportunities. It is the destination for over 13 million tourists each year, has over 400 hotels with 80,000 rooms, 1400 restaurants, and 50 theme parks and attractions. The industry employs a half million people in the State of Florida and many are in the Central Florida area.

The leaders of this industry have helped design a program of study for the major that prepares both experienced employees and newly entering students to successfully compete for employment in the industry at the local and national levels. The educational mission of the department is to provide our students with the knowledge, skills, and ability to identify opportunities and challenges in the hospitality industry, to apply creative decision techniques in responding to those opportunities, and to lead the industry into the next century.

The major is designed to prepare students for a broad range of managerial roles across the hospitality industry. It provides both academic preparation and "hands on" experiences that students will need to enter and succeed in a hospitality management career. Students also have the opportunity to experience the work world in hospitality through the 800 hour cooperative education requirement and through extensive contact with leading hospitality managers in the Central Florida area.

MINOR in Hospitality Management
The Department offers an eighteen hour minor in Hospitality Management.

Required courses for the minor are:
- HFT 3540, HFT 4752, FSS 3223, HFT 4210, HFT 4250C, HFT 4717. A GPA of 2.0 is required for these courses. Twelve (12) semester hours must be taken at UCF.
Bachelor of Science in Business Administration:
Hospitality Management

Degree Requirements
1. Completion of all University Undergraduate Degree requirements and all Common Body of Knowledge requirements in the College of Business.
2. UCF Residency Requirements: 31 hours
3. Special college and/or department requirements:
   A. Students seeking to major in Hospitality Management must apply for admission to the major.
   B. Within the College of Business Administration attendance on the first day of class is mandatory. Final exams will be given during Exam Week only.
   C. A transfer student to this program must take a minimum of twelve (12) hours in hospitality management at UCF.
   D. A cooperative work experience of 600 hours is a graduation requirement.
   E. Students should substitute HFT 3600 Legal Environment of Hospitality/Tourism for BUL 3130 Legal Environment of Business to satisfy the College of Business's Common Body of Knowledge.
4. Required Courses:
   - HFT 3540 Guest Services Management 3 hours
   - HFT 4752 Guest Services Management II 3 hours
   - FSS 3223 Hospitality Enterprises Management I 3 hours
   - HFT 4210 Hospitality Enterprises Management II 3 hours
   - HFT 4250C Hotel/Motel Management & Operations 3 hours
   - HFT 4717 Hospitality Operations II 3 hours
   TOTAL 18 Hours
5. Restricted Electives: Hospitality major should select any three (3) courses taught in the Hospitality Management Department and includes the following: AVM 4510, FSS 3120, FSS 3301, FSS 3232C, FSS 3241, FSS 4284C, HFT 3754, HFT 4343, HFT 4473, HFT 4722, HFT 4735, HFT 4753, HFT 4754, HFT 4860, HFT 4932.
6. Hospitality Management Cooperative Education 0 hours
   The cooperative education requirement provides students the opportunity to see how classroom theory is applied to the world of work. Hospitality students must complete a minimum of 800 clock hours (equivalent to 20 full time weeks) of paid study-related work experience in a hospitality or tourism enterprise. All work related experiences must be approved in advance by the departmental co-op advisor.
7. Electives: As necessary to result in 120 total credit hours.
   Total Semester Hours Required 120

DEPARTMENT OF MANAGEMENT
Chair: P. Lewis, BA 335, Phone (407) 823-2679
Faculty: Abramowitz, Barringer, Bogumil, Callarman, Fernald, Goodman, Harrison, Hatfield, Huseman, F. Jones, H. Jones, Leigh, R. Martin, Odisho, Pullin, Purvis, Rosenkrantz

The Department of Management offers programs of study in two major areas:
(1) Management (Track Specializations), and
(2) Management Information Systems.

The study of management involves an investigation of the processes and techniques of leadership, planning, and controlling of both small and large organizations. Courses are designed to demonstrate the impact of technological factors, the framework for decision-making and human behavior, the management of human resources on the overall effectiveness of the organization.

The study of management information systems involves learning how information technology can improve organizational effectiveness and efficiency. Courses are designed to give students hands-on skills in designing and developing relational databases, client/server systems, graphical user interfaces, queries and reports, and in project management.

Bachelor of Science in Business Administration: Management Degree Requirements
1. Completion of all University Undergraduate Degree requirements and all Common Body of Knowledge requirements in the College of Business.

2. Special college and/or department requirements:
   A. Students wanting to major in Management must apply for admission to the major.
   B. Within the College of Business Administration the first day of class is mandatory. Final exams will be given during Exam Week.
   C. A transfer student to this program must take a minimum of twelve (12) semester hours in management at UCF.

3. Students may choose to concentrate in one of two areas of study. Courses for each area of concentration are listed below.

   A. Management - Track Specializations
      a. Human Resource Management
         Required courses (24 hours)
         - ISM 3011 Management Information Systems 3 hours
         - MAN 4701 Business Ethics and Society 3 hours
         - MAN 4240 Organization Theory and Behavior 3 hours
         - MAN 3301 Human Resource Management 3 hours
         - MAN 4101 Human Relations in Management 3 hours
         - MAN 4401 Labor Relations Management 3 hours
         - MAN 4350 Training and Development 3 hours
         - MAN 4310 Personal Management Issues 3 hours
      
      b. Productivity and Quality
         Required Courses (24 hours)
         - ISM 3011 Management Information Systems 3 hours
         - MAN 4101 Human Relations in Management 3 hours
         - MAN 4240 Organization Theory and Behavior 3 hours
         - MAN 4029 Management of Service Organizations 3 hours
         - MAN 4521 Production Planning and Control 3 hours
         - MAN 4572 Procurement Management 3 hours
         - MAN 4540 Management Science and Decision Support 3 hours
         - MAN 4595 Automated Material Planning 3 hours
      
      c. General
         Required courses (15 hours)
         - ISM 3011 Management Information Systems 3 hours
         - MAN 4701 Business Ethics and Society 3 hours
         - MAN 4240 Organization Theory and Behavior 3 hours
         - MAN 4101 Human Relations in Management 3 hours
         - MAN 4600 International Management 3 hours
         
         Restricted Elective Courses - Take three additional courses to be selected from any two other specialization areas.

   B. Management - Information Systems
      Required Courses (18 hours)
      - ISM 3005 MIS Techniques 3 hours
      - ISM 4113 Information Systems Analysis and Design 3 hours
      - ISM 4130 Information Systems Implementation 3 hours
      - ISM 4212 Database Management Systems 3 hours
      - ISM 4220 Distributed Information Systems 3 hours
      - ISM 4300 Information Technology Management 3 hours
      
      Restricted Elective Courses: Take three (9 hours)
      - ISM 4090 Seminar in MIS 3 hours
      - ISM 4641 Internship in MIS 3 hours
      - MAN 4240 Organization Theory and Behavior 3 hours
      - MAN 4540 Management Science and Decision Support 3 hours
      - MAN 4595 Computer-Based Operations Management 3 hours
      
4. Electives: As necessary to result in 120 total credit hours.

Total Semester Hours Required: 120
MINOR in Management Information Systems (For Business and Non-Business Majors)
The College of Business Administration and the Department of Management offer a minor in Management Information Systems. This minor is currently under revision. Please see the Office of Student Support in BA room 240 for details.

DEPARTMENT OF MARKETING
Chair: R. Michaels, BA 317, Phone (407) 823-2108
Faculty: Allen, Davis, Ellis, Fisk, Fuller, Ganesh, Gillett, Jarvis, Luckett, Michaels, Paul, Quaintance, Rodriguez, Rubin, Teeple

The department's curriculum, titled Impact Marketing 2000, provides students the opportunity to study marketing in a logical, sequential, and integrated manner. Students are provided the basic structure of the marketing system and environment in MAR 3023. In four additional courses students build competencies, skills, and knowledge in such areas as information acquisition, analysis, communications, customer behavior, and marketing research. Those four courses are precursors to two capstone courses in which students apply problem-solving and decision-making skills within the context of marketing programs and strategies. Recurrent themes throughout the curriculum are teamwork, communication, creativity, driving change, quantitative analysis, problem-solving/decision-making and global orientation.

Bachelor of Science in Business Administration: Marketing
Degree Requirements
1. Completion of all University Undergraduate Degree requirements and all Common Body of Knowledge requirements in the College of Business.
2. Special college and/or department requirements:
   a) Students wanting to major in Marketing must apply for admission to the major.
   b) Within the College of Business Administration the first day of class is mandatory.
   c) Final exams will be given during Exam Week.
   d) A transfer student to this program must take a minimum of twelve (12) semester hours in marketing at UCF.
   e) Students majoring in Marketing must earn a grade of "C" or better in each course applied toward the major, and a 2.0 overall average in the major. MAR 3023 is included in this requirement.
3. Required Courses
   MAR 3641 Marketing Intelligence 3 hours
   MAR 3503 Customer Behavior and Relationship Marketing 3 hours
   MAR 3613 Marketing Analysis and Research 3 hours
   MAR 3391 Marketing Comm and Professional Selling 3 hours
   MAR 4803 Marketing Management 3 hours
   MAR 4804 Marketing Strategy 3 hours
4. Restricted Electives
   Minimum of 3 courses required
   MAR 3323 Advertising, Sales Promotion, Public Relations 3 hours
   MAR 3403 Sales Force Management 3 hours
   MAR 4156 International Marketing 3 hours
   MAR 4231 Retailing Management 3 hours
   MAR 4712 Healthcare Marketing 3 hours
   MAR 4711 Sports Marketing 3 hours
   MAR 4841 Services Marketing 3 hours
5. Electives: As necessary to result in 120 total credit hours

Total Semester Hours Required 120

Majors who meet departmental criteria are also eligible to apply for a marketing internship (MAR 4941) and/or the small business consulting class (MAR 5941). Each of these classes is assigned three credit hours; however, neither can be counted as one of the three restricted electives required of marketing majors. For additional information about the department, curriculum, faculty, events, and careers in marketing, students are invited to visit our department home page at: http://www.bus.ucf.edu/mar/.
COLLEGE OF EDUCATION

UNDERGRADUATE PROGRAMS
Art Education (BS)
Early Childhood Education (BS)
Elementary Education (BS)
English Language Arts Education (BS)
Exceptional Child (BS)
Foreign Language Education (BS)
Mathematics Education (BS)
Physical Education (BS)
Science Education (BS)
Social Science Education (BS)
Vocational Education and Industry Training (BS)

GRADUATE PROGRAMS*

Master Programs
Business Education (M.Ed.)
Counselor Education (MA, M.Ed)
Educational Leadership (MA, M.Ed)
Educational Media (MA, M.Ed)
Elementary Education (MA, M.Ed)
English Language Arts Education (MA, M.Ed)
Exceptional Child (MA, M.Ed)
Instructional Systems (MA)
Instructional Technology/Media (MA, M.Ed)
Mathematics Education (MA, M.Ed)
Music Education (MA, M.Ed)
Physical Education (MA, M.Ed)
Reading Specialist (MA, M.Ed)
Science Education (MA, M.Ed)
Social Science Education (MA, M.Ed)
Vocational Education and Industry Training (MA, M.Ed)

Doctoral and Specialist Programs
Curriculum and Instruction (Ed.S, Ed.D)
Educational Leadership (Ed.S, Ed.D)
School Psychology (Ed.S)

*See the Graduate Catalog for information

Recent legislation has mandated changes in program admission prerequisites, program length, and course levels. This document may not include the final versions of these changes. See your college advisor for current information.
COLLEGE OF EDUCATION

Interim Dean: John W. Powell, ED 328, Phone (407) 823-2046
Associate Dean: John A. Middleton, ED 328, Phone (407) 823-6475
Assistant Dean: Margaret G. Miller, ED 115, Phone (407) 823-2436
Assistant Dean: Michael C. Hynes, ED 146, Phone (407) 823-6076

The role of the College of Education at the undergraduate level is to prepare students for careers as elementary, secondary, exceptional, physical, and vocational education teachers. The program of studies includes three components: general education, a subject matter specialization(s), and a teacher education component that addresses the professional knowledge and practical experience future teachers need in order to successfully teach children and youth in public school or private school settings.

The College of Education offers Bachelor of Science degrees with the following majors:

- Art Education
- Early Childhood Education
- Elementary Education
- English Language Arts Education
- Exceptional Student Education
- Foreign Language Education
- Mathematics Education
- Physical Education
- Science Education
- Social Science Education
- Vocational Education and Industry Training

Admission to the University of Central Florida does not imply admission to the College of Education. Students will only be allowed to enroll in the 3000/4000 level courses taught by the College of Education after they have been admitted to the College. Students admitted to the College of Education will need to meet additional requirements in order to be fully admitted to Teacher Education.

Admission to the College of Education

Admission to the College will be granted when students meet the following requirements:

- complete 60 hours including the University General Education program or its equivalent, i.e. an A.A. degree from an approved Florida community college or state university
- have on file in the University admissions office a score at or above the 40th percentile on the SAT (840 prior to 3/95; 960 after 3/95) or ACT (20 enhanced) and a 2.5 overall GPA.
- complete 3 parts of the CLAST examination

Admission to Teacher Education

Admission to Teacher Education will be granted when students who have been admitted to the College of Education meet the following requirements:

- have on file in the University admissions office passing scores on all parts of the College Level Academic Skills Test (CLAST)
- present an overall GPA of 2.5
- achieve a "C" or better grade in EDG 4321, Teaching Strategies, including successful completion of the tutorial component or equivalent
- complete a formal application for admission to a particular teacher education program
- be recommended by the faculty of the department of the student's major
- meet any special departmental requirements

Non-Degree Program (Initial Certification Only)

All students who have earned a Baccalaureate degree from an accredited institution and who wish to be certified in elementary education must complete an undergraduate or master's degree in elementary education. For other certification areas for which the College has programs, students may elect to complete 1) an undergraduate degree 2) a graduate degree or 3) an alternative program as a post-baccalaureate student. Students must meet regular admission requirements for the College of Education and Teacher Education.
Teacher Education Curriculum

The professional teacher education curriculum is designed to provide students the opportunity to develop the professional knowledge, understandings, and competencies required for entry into the profession of teaching. Particular attention is given in the curriculum to the following:

- knowledge and understanding of the growth and development of children and youth
- knowledge and understanding of how children and youth learn
- knowledge and skills for accurately assessing and evaluating student performance
- knowledge and understanding of the role and function of schools and teachers in a free society to design educational teaching objectives
- ability to plan and implement effective teaching strategies
- ability to utilize computers and other forms of technology in teaching
- ability to work with culturally diverse populations

Common Body of Professional Knowledge

Department of Educational Foundations, ED 243, Phone (407) 823-2427

The following course work provides the foundation of professional knowledge and understanding and is required of all majors:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDG 4321</td>
<td>Teaching Strategies I</td>
<td>4</td>
</tr>
<tr>
<td>EDG 4324</td>
<td>Teaching Strategies II</td>
<td>3</td>
</tr>
<tr>
<td>EDF 3603</td>
<td>Analysis of Educational Foundations</td>
<td>3</td>
</tr>
<tr>
<td>EDF 4214</td>
<td>Classroom Learning Principles</td>
<td>3</td>
</tr>
</tbody>
</table>

Student Internships

Assistant Dean: M. Miller, ED 115, Phone (407) 823-2436
Directors: R. Martin, B. Siebert

The internship components of the professional program include early and continuous field experiences which provide students opportunities to develop skills and instructional competence. The internship program provides students a broad range of instructional experiences in various school settings which are developed through cooperative planning with local school administrators and teachers.

Field experience is an integral part of every degree program and consists of two major components. Placement of students is the responsibility of the College of Education. Students are placed in public schools that have been approved as Student Internship Centers.

**Internship I** is a six semester hour credit experience. Students are assigned to work with certified supervising teachers under the direction of a College faculty coordinator. The program provides the student experiences at different grade levels and classroom settings for the purpose of developing specific instructional skills and knowledge and understanding of schooling. Students are enrolled in a limited number of related professional courses during the experience with the consent of their department chair. Application is made through the Office of Student Internships.

Admission to Internship I is restricted to those students who have been admitted to the Teacher Education program. A 2.5 overall GPA is required when application is submitted.

Deadlines are as follows:

- **Fall Semester**: February 15 (preceding semester)
- **Spring Semester**: September 15 (preceding semester)

**Internship II** is a twelve-hour experience normally completed during the student's last semester. The student is placed in an approved school internship center under a supervising teacher and College coordinator. Students are expected to develop and execute instructional plans and to demonstrate the competencies required for temporary certification. The internship is considered a full-time experience, and students are permitted to enroll in other classes only with the consent of their department chair.

Admission to Internship II requires that the student has successfully completed requirements of Internship I and possesses at the time of application, a 2.5 G.P.A. in the area of content specialization, a 2.5 G.P.A. in the professional education sequence, and a 2.5 G.P.A. overall. Students must also have completed all methods and 3/4 of the courses in their specialization. Students must also be approved for admission by the faculty in the department of the student's...
major. Internship II experience is expected to be completed locally. Guest internships will not be approved.

Application is made through the office of Student Internships. Application deadlines are as follows:

<table>
<thead>
<tr>
<th>Semester</th>
<th>Deadline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall Semester</td>
<td>February 15 (preceding semester)</td>
</tr>
<tr>
<td>Spring Semester</td>
<td>September 15 (preceding semester)</td>
</tr>
</tbody>
</table>

Graduation Requirements for a Two-Year Temporary Certificate

To qualify for graduation, a student must have a 2.5 G.P.A. in all course work, a 2.5 G.P.A. in the area of content specialization, and a 2.5 G.P.A. in the professional course sequence. All College of Education undergraduate curricula fulfill State of Florida academic requirements for temporary certification. College of Education graduates who desire to teach outside Florida must meet certification requirements of the state in which they intend to seek a teaching position and should contact the appropriate Director of Teacher Education, State Department of Education for specific requirements.

All applicants for the Professional Teaching Certificate must demonstrate satisfactory completion of the Professional Orientation Program requirements and pass the College Level Academic Skills Test (CLAST), the Professional Education Test, and a Subject Area Examination in the certification area.

DEPARTMENT OF EDUCATIONAL FOUNDATIONS
Chair: Karen L. Biraimah, ED 243, Phone (407) 823-2426
Faculty: Professors: Cowgill, Dziuban, Kysilka, Lange
Associate Professors: Allen, Beadle, Biraimah, Blume, Harrow, Hiett, Holt, Miller, Sciortino, Sullivan, Wood
Assistant Professors: Chang, Hutchinson, Martin

The Department of Educational Foundations teaches the core of professional courses that address the competencies and skills needed by all teachers. Foundation courses are also available for students pursuing graduate degrees in teacher education.

DEPARTMENT OF EDUCATIONAL SERVICES
Interim Chair: David E. Hernandez, ED 318, Phone (407) 823-2596
Faculty: Professors: Baumbach, Bozeman, Hernandez, Johnson, Lynn, Mealor, Orwig, Rothberg
Associate Professors: Balado, Cornell, Driscoll, Tubbs
Assistant Professors: Creamer, Lee, B. Murray, K. Murray, Pawlas, Shephard-Tew

The focus of the Department of Educational Services is to provide training for specialists in school and non-school environments. Certification programs and masters level (M.A. or M.Ed.) graduate programs are available in Counselor Education, Educational Media, Educational Leadership, and Instructional Systems. The Educational Specialist (Ed.S.) is offered in Educational Leadership and School Psychology. The Doctor of Education (Ed.D) degree is offered in Educational Leadership.

DEPARTMENT OF EXCEPTIONAL AND PHYSICAL EDUCATION
Interim Chair: Jennifer Platt, ED 214 Phone (407) 823-2598
Faculty: Professors: Midgett, Olson, Patton, Platt, Rohter
Associate Professors: Bell, A. Cross, L. Cross, Gergley, Higginbotham, Miller, Powell
Assistant Professors: Clark, Martin, Mitchell, Renner
Instructors: Hunt, Kazoroski, Walker-Knight, Woodson

Undergraduate academic major programs leading to bachelor’s degrees and certification are offered in Exceptional Education and Physical Education. The Exceptional Education program includes specialties in, (a) emotionally handicapped; (b) mentally handicapped and (c) specific learning disabilities at the K-12 levels. The Physical Education program is a K-8 specialization. In addition, secondary certification programs are available. Students are responsible for completion of program requirements and are encouraged to review their programs with an assigned advisor.
Bachelor of Science: Exceptional Student Education

1. See Undergraduate Degree Requirements
2. See special college and/or department requirements
3. UCF Residency Requirement: 32 hours

**Preprofessional Requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPC 1600</td>
<td>Fundamentals of Oral Communication</td>
<td>3</td>
</tr>
<tr>
<td>PSY 2013</td>
<td>General Psychology OR</td>
<td>3</td>
</tr>
<tr>
<td>SYG 2000</td>
<td>General Sociology</td>
<td>3</td>
</tr>
<tr>
<td>MAC 1104</td>
<td>College Algebra OR</td>
<td>3</td>
</tr>
<tr>
<td>MGF 1203</td>
<td>Finite Math</td>
<td>3</td>
</tr>
<tr>
<td>CGS 1060</td>
<td>Introduction to Computer Science</td>
<td>3</td>
</tr>
</tbody>
</table>

**Prerequisites to Internship I**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDE 4321</td>
<td>Teaching Strategies I</td>
<td>4</td>
</tr>
<tr>
<td>RED 3012</td>
<td>Basic Foundations of Reading</td>
<td>3</td>
</tr>
<tr>
<td>EEX 3010</td>
<td>Intro to Special Education</td>
<td>3</td>
</tr>
<tr>
<td>EEX 3241</td>
<td>Methods for Acad Skills for Exceptional Students</td>
<td>4</td>
</tr>
</tbody>
</table>

**RECOMMENDED PRIOR TO INTERNSHIP I**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDE 3943</td>
<td>Internship I (K-12)</td>
<td>6</td>
</tr>
</tbody>
</table>

**Additional Professional Requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDF 3603</td>
<td>Analysis of Educational Foundations</td>
<td>3</td>
</tr>
<tr>
<td>EDE 4324</td>
<td>Teaching Strategies II</td>
<td>3</td>
</tr>
<tr>
<td>EDF 4214*</td>
<td>Classroom Learning Principles</td>
<td>3</td>
</tr>
</tbody>
</table>

**Specialization Requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EEX 3102</td>
<td>Lang Dev and Comm Disorders*</td>
<td>3</td>
</tr>
<tr>
<td>EEX 3221</td>
<td>Assessment of Exceptional Students</td>
<td>3</td>
</tr>
<tr>
<td>EEX 4601</td>
<td>Intro to Behavior Management</td>
<td>3</td>
</tr>
<tr>
<td>EEX 3243</td>
<td>Techniques for Exceptional Adolescents-Adults</td>
<td>3</td>
</tr>
<tr>
<td>EEX 4753</td>
<td>Parent/Professional Collaboration</td>
<td>3</td>
</tr>
<tr>
<td>MAE 2801</td>
<td>Elementary School Mathematics</td>
<td>4</td>
</tr>
</tbody>
</table>

**Specialization Core**

**Emotionally Handicapped Specialization**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EED 3250</td>
<td>Behavioral Issues of the Emot Handicapped</td>
<td>3</td>
</tr>
<tr>
<td>EED 4243</td>
<td>Teaching Emotionally Handicapped</td>
<td>3</td>
</tr>
<tr>
<td>EED 4210</td>
<td>Curriculum &amp; Program Adaptation E.H.</td>
<td>3</td>
</tr>
</tbody>
</table>

**Learning Disabilities Specialization**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELD 4011</td>
<td>Introduction to Specific Learning Disabilities</td>
<td>3</td>
</tr>
<tr>
<td>LAE 4312*</td>
<td>Language Arts in Elementary Schools</td>
<td>3</td>
</tr>
<tr>
<td>ELD 4242</td>
<td>Program Planning for Specific Learning Disabilities</td>
<td>3</td>
</tr>
</tbody>
</table>

**Mentally Handicapped Specialization**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EME 4011</td>
<td>Intro to Mental Retardation</td>
<td>3</td>
</tr>
<tr>
<td>LAE 4314</td>
<td>Language Arts in Elementary Schools</td>
<td>3</td>
</tr>
<tr>
<td>EMR 4372</td>
<td>Curr Method &amp; Materials for Retarded Persons</td>
<td>3</td>
</tr>
</tbody>
</table>

**Internship II**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESE 4943</td>
<td>Internship II (K-12)</td>
<td>12</td>
</tr>
</tbody>
</table>

In addition to the College of Education and other department requirements, an exceptional education student enrolling in Internship II must have a grade of "C" or better in each exceptional education course.

Students are expected to take courses in a sequence depending on fall or spring semester entrance. See an advisor.

Bachelor of Science: Physical Education K-8

**Physical Education 6-12**

1. See Undergraduate Degree Requirements
2. See special college and/or department requirements
Preprofessional Requirements (12) These courses may be taken prior to UCF enrollment.

SPC 1600 Fundamentals of Oral Communication 3 hours
PSY 2013 OR General Psychology OR 3 hours
SYG 2000 General Sociology 3 hours
MAC 1104 OR College Algebra OR 3 hours
MGF 1203 Finite Math 3 hours
ZOO 3733C Human Anatomy 3 hours

Prerequisites to Internship I
EDG 4321 Teaching Strat I 4 hours
EDF 4214 Classroom Learning Principles 3 hours

Internship I
EDE 3942 Internship I Elementary** 6 hours
PET 3720C Teaching Physical Education (K-8) 2 hours
PET 3740C Teaching Physical Education (6-12) 2 hours

Additional Professional Requirements
EDF 3603 Analysis of Educational Foundation 3 hours
EDG 4324 Teaching Strategies II 3 hours

Additional Specialization Requirements
PET 3041 Games Elem Physical Education Program 3 hours
DAE 3370 Dance & Rhythms 3 hours
PEP 3204 Gymnastics 3 hours
PET 4035 Motor Development Learning 3 hours
PET 4312 Biomechanics 3 hours
PET 4351 Applied Exercise and Human Physiology 3 hours
PEO 3011 Team Sports 3 hours
PEO 3031 Individual Sports and Leisure Activities 3 hours
PET 4401 Adm and Eval in Physical Education 3 hours
PET 4640 Adapted Physical Education 3 hours
PET 4724 Phy Education Curr. Development and History 3 hours
PET 4622 Human Injuries 3 hours

Internship II
EDE 4943 Internship II Elementary* OR 12 hours
ESE 4943 Internship II Secondary* 12 hours

**Students who select K-8 and 6-12 program must have at least one internship at middle grades or high school level.

Additional Courses for 6-12 Certification
PET 4382 Fitness Assessment 3 hours
PET 3760 Coaching Theory and Officiating 3 hours

Minimum Total Semester Hours Needed 120

Additional Courses for Coaching Endorsement
PET 3760 Coaching Theory and Officiating 3 hours
PET XXXX Coaching Specific 3 hours

DEPARTMENT OF INSTRUCTIONAL PROGRAMS
Chair: J. Armstrong, ED 346, Phone (407) 823-2939
Faculty: Professors: Blair, Brumbaugh, Hall, Hynes, Joels, Martin, Palmer, Scott-Kassner, Thompson
Associate Professors: Armstrong, Bailey, Camp, Cornett, Everett, Gurney, Hopkins, Hudson, Ortiz, Paugh, Siebert, Sorg, West, Williams
Assistant Professors: Allen, Holmes, Johnson, McGhee, Romjue
Instructors: Buchoff, Kiger, Rodriguez

Elementary Education
The career Elementary Education program is planned for students interested in the education of children, six through twelve years of age. Students who major in elementary education are qualified to teach grades one through six upon graduation and receipt of a Florida teaching certificate.
An elementary education major must have the following preparation: (1) a broad general education; (2) a specialized knowledge of content, techniques, and materials needed to teach different elementary school subjects such as art, language arts, reading, mathematics, music, physical education, science and social studies; and (3) professional study which includes planned laboratory activities with children in schools identified as Teacher Education Centers. In addition to the College of Education and other department requirements, an elementary education student enrolling in Internship II must have a grade of "C" or better in each methods course and must have taken all methods courses before taking Internship II.

Early Childhood Education (kindergarten). In combination with preparation to teach grades one through six, requirements may be met for preparation/certification to teach Kindergarten.

Secondary Education
Career programs are available for prospective teachers who have an interest in working with adolescent students in a specific academic area at the middle, junior, or high school levels. Specializations are available in Biology, Business, Chemistry, English, Foreign Language, Mathematics, Physics, and Social Science.

Art/Music/Foreign Language
Three programs are designed to prepare specialists to teach at both the elementary and secondary levels (K-12). Majors in Art and Foreign Language Education are available. The Bachelor's degree program in Music Education is located in the Department of Music with the Department of Instructional Programs responsible for professional requirements.

Vocational Education and Training Development
The vocational education degree is for individuals in Business/Office Occupations, Industrial/Technical areas or selected Health Occupations who wish to teach their specialization in secondary or post-secondary schools. To be eligible for the degree, students must have worked full time in the occupation for at least two years and must demonstrate competence through an examination or licensure in the area in which they wish to teach. A maximum of 30 semester hours of credit by examination or credit granted through licensing may count toward the degree.

The Training Development Track is designed for individuals who are or who plan to be trainers in business, industry, or health care facilities. This option will not prepare individuals to meet Florida Teacher Certification requirements.

Bachelor of Science: Art Education
1. See Undergraduate Degree Requirements
2. See special college and/or department requirements

Preprofessional Requirements
- SPC 1600 Fundamentals of Oral Communication 3 hours
- PSY 2013 General Psychology OR 3 hours
- SYG 2000 General Sociology 3 hours
- MAC 1104 College Algebra OR 3 hours
- MGF 1203 Finite Mathematics 3 hours
- ART 2201 Design Fundamentals I 3 hours

Prerequisites to Internship I
- EDG 4321 Teaching Strategies I 4 hours
- EDF 4214 Classroom Learning Principles 3 hours

Internship I
- EDE 3943 Internship I K-12 6 hours

Additional Professional Requirements
- ARE 4351 Methodology for Teaching Art Education I 3 hours
- ARE 4352 Methodology for Teaching Art Education II 3 hours
- EDG 3603 Analysis of Educational Foundations 3 hours
- EDG 4324 Teaching Strategies II 3 hours

Specialization Requirements
- ART 2201C Design Fundamentals I 3 hours
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<tr>
<td>ART 2202C</td>
<td>Design Fundamentals II</td>
<td>3</td>
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<tr>
<td>ART 2300C</td>
<td>Drawing Fundamentals I</td>
<td>3</td>
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<tr>
<td>ART 2301</td>
<td>Drawing Fundamentals I</td>
<td>3</td>
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<tr>
<td>ART 3110C</td>
<td>Ceramics</td>
<td>3</td>
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<tr>
<td>ART 3510C</td>
<td>Painting</td>
<td>3</td>
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<tr>
<td>ART 3400C</td>
<td>Printmaking</td>
<td>3</td>
</tr>
<tr>
<td>ART 3230C</td>
<td>Design in Advertising</td>
<td>3</td>
</tr>
<tr>
<td>ARH 2050</td>
<td>History of Art I</td>
<td>3</td>
</tr>
<tr>
<td>ARH 2051</td>
<td>History of Art II</td>
<td>3</td>
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<tr>
<td>ARE 4356</td>
<td>Teaching Art Appreciation</td>
<td>3</td>
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<tr>
<td>PGY 3401C</td>
<td>Photography</td>
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**Restricted Electives - Select Two**

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<td>Community Arts I</td>
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<tr>
<td>ARE 3663</td>
<td>Community Arts II</td>
<td>3</td>
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<tr>
<td>ART 5109C</td>
<td>Crafts Design</td>
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<tr>
<td>ART 3701</td>
<td>Sculpture</td>
<td>3</td>
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<tr>
<td>PHI 3800</td>
<td>Aesthetics</td>
<td>3</td>
</tr>
<tr>
<td>PHI 3803</td>
<td>Philosophy and Creativity</td>
<td>3</td>
</tr>
<tr>
<td>ART 4530</td>
<td>Advanced Painting</td>
<td>3</td>
</tr>
<tr>
<td>ART 4166</td>
<td>Metals, Woods</td>
<td>3</td>
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<tr>
<td>ART 4130</td>
<td>Fibers, Fabrics, Textiles, Synthetics</td>
<td>3</td>
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<tr>
<td>ARE 3550</td>
<td>Introduction to Art Therapy</td>
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<tr>
<td>Internship II</td>
<td>Internship II (K-12)</td>
<td>1 hour</td>
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</table>

**Bachelor of Science: Early Childhood Education**

The career Early Childhood Education program is planned for students interested in the education of young children, 0 through 8 years of age. Depending on the program option, students majoring in early childhood education are qualified to teach children from age three to grade three or birth to age 4 upon graduation and the receipt of a Florida teaching certificate. An early childhood education major must have the following preparation: (1) a broad general education; (2) a specialized knowledge of content, including techniques needed to work with young children and families, and (3) professional study which includes planned laboratory activities with young children in schools identified as Teacher Education Centers.

1. See Undergraduate Degree Requirements
2. See special college and/or department requirements

**Preprofessional Requirements**

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Hours</th>
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<td>3</td>
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<tr>
<td>MAC 1104</td>
<td>College Algebra OR</td>
<td>3</td>
</tr>
<tr>
<td>MGF 1203</td>
<td>Finite Mathematics</td>
<td>3</td>
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<tr>
<td>PSY 2013</td>
<td>General Psychology I</td>
<td>3</td>
</tr>
<tr>
<td>SYG 2000</td>
<td>General Sociology</td>
<td>3</td>
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</table>

3. Successful completion of following courses prior to the Junior Year.

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<th>Course Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>ARE 2022</td>
<td>Art &amp; Creativity</td>
<td>3</td>
</tr>
<tr>
<td>MUE 2210</td>
<td>Music &amp; Movement</td>
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**Program Sequence**

**Junior I - 16 SH**

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<tr>
<td>EDF 3740</td>
<td>Found. of Early Childhood Education</td>
<td>3</td>
</tr>
<tr>
<td>EDF 3120</td>
<td>Observed Child Growth &amp; Dev</td>
<td>3</td>
</tr>
<tr>
<td>EEC 3268</td>
<td>Play Development</td>
<td>3</td>
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<tr>
<td>EEX 3455</td>
<td>Young Children w/ Special Needs</td>
<td>3</td>
</tr>
<tr>
<td>EEC 3xx</td>
<td>Early Childhood Learn Environ</td>
<td>3</td>
</tr>
<tr>
<td>EEC 3940</td>
<td>Integration-Internship</td>
<td>1 hour</td>
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</table>

Minimum Total Semester Hours Needed 120
### Bachelor of Science: Elementary Education

1. See Undergraduate Degree Requirements
2. See special college and/or department requirements
3. UCF Residency Requirement: 31 hours

#### Preprofessional Requirements

<table>
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<tbody>
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</tr>
<tr>
<td>PSY 2013</td>
<td>General Psychology I</td>
<td>3</td>
</tr>
<tr>
<td>MAC 1104</td>
<td>College Algebra OR</td>
<td>3</td>
</tr>
<tr>
<td>MGF 1203</td>
<td>Finite Math</td>
<td>3</td>
</tr>
<tr>
<td>SYG 2000</td>
<td>General Sociology OR</td>
<td>3</td>
</tr>
<tr>
<td>ANT 3410</td>
<td>Cultural Anthropology OR</td>
<td>3</td>
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<tr>
<td>GEO 3470</td>
<td>World Political Geography</td>
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#### Prerequisites to Internship I

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>EDG 4321</td>
<td>Teaching Strategies I</td>
<td>4</td>
</tr>
<tr>
<td>RED 3012</td>
<td>Foundations of Reading</td>
<td>3</td>
</tr>
<tr>
<td>MAE 2801</td>
<td>Instr of Math in the Elem School</td>
<td>4</td>
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**RECOMMENDED:**

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<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>EDF 4214</td>
<td>Classroom Learning Principles</td>
<td>3</td>
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#### Internship I

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>MAE 4326</td>
<td>How Children Learn Math</td>
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<tr>
<td>RED 4519</td>
<td>Diagnostic and Corrective Reading Strategies</td>
<td>3</td>
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<tr>
<td>SSE 3312</td>
<td>Teaching Soc Sci in the Elementary Schools</td>
<td>4</td>
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<tr>
<td>EDE 3942</td>
<td>Internship I Elementary</td>
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#### Additional Professional Requirements

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<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>EDF 3603</td>
<td>Analysis of Educational Foundations</td>
<td>3</td>
</tr>
<tr>
<td>EDG 4324</td>
<td>Teaching in Strategies II</td>
<td>3</td>
</tr>
<tr>
<td>EDF 4214</td>
<td>Classroom Learning Principles</td>
<td>3</td>
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#### Additional Specialization Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>ARE 4313</td>
<td>Art/Elementary Schools</td>
<td>3</td>
</tr>
<tr>
<td>HLP 4722</td>
<td>Teaching Elementary School Health Physical Ed</td>
<td>3</td>
</tr>
<tr>
<td>LAE 3414</td>
<td>Literature for Children</td>
<td>3</td>
</tr>
<tr>
<td>LAE 4314</td>
<td>Language Arts/Elementary</td>
<td>3</td>
</tr>
<tr>
<td>MUE 3210</td>
<td>Music Elementary School</td>
<td>3</td>
</tr>
<tr>
<td>SCE 3310</td>
<td>Teaching Science in Elementary School</td>
<td>4</td>
</tr>
</tbody>
</table>
## Bachelor of Science: English Language Arts Education

1. See Undergraduate Degree Requirements
2. See special college and/or department requirements

### Preprofessional Requirements
- **SPC 1600** Fundamentals of Oral Communication 3 hours
- **CRW 3003** Introduction to Creative Writing 3 hours
- **MAC 1104** College Algebra OR 3 hours
- **MGF 1203** Finite Math 3 hours
- **PSY 2013** General Psychology 3 hours

### Prerequisite to Internship I
- **EDG 4321** Teaching Strategies I 4 hours
- **LAE 4464** Literature for Adolescents 3 hours

### Internship I
- **ESE 3940** Internship I Secondary 6 hours
- **LAE 4360** English Instructional Analysis 4 hours
- **LAE 4342** Teaching Language/Composition 3 hours

### Additional Professional Requirements
- **EDF 3603** Analysis of Educational Foundations 3 hours
- **EDG 4324** Teaching Strategies II 3 hours
- **EDF 4214** Classroom Learning Principles 3 hours

### Specialization Requirements
- **LIT 2110** World Literature I OR 3 hours
- **LIT 2120** World Literature II 3 hours
- **ENL 3010** English Literature I to 1798 3 hours
- **ENL 3021** English Literature II to 1950 3 hours
- **AML 3031** American Literature I 3 hours
- **AML 3051** American Literature II 3 hours
- **LIT 3000** Literary Analysis 3 hours
- **ENG 3311** Advanced Expository Writing 3 hours
- **LIN 4680** Modern English Grammar OR 3 hours
- **LAE 4XXX** Literacy Strategies 3 hours

### Restricted Electives (6 SH)
- Two English courses approved by advisor 6 hours

### Internship II
- **ESE 4943** Internship II Secondary 12 hours

## Bachelor of Science: Foreign Language Education - French

1. See Undergraduate Degree Requirements
2. See special college and/or department requirements
3. UCF Residency Requirement: 33 hours

### Preprofessional Requirements
- **SPC 1600** Fundamentals of Oral Communication 3 hours
- **PSY 2013** General Psychology OR 3 hours
- **SYG 2000** General Sociology 3 hours
- **MAC 1104** College Algebra OR 3 hours
- **MGF 1203** Finite Math 3 hours
- **FRE 2201** Intermediate French Language and Civ 3 hours

### Prerequisites to Internship I
- **EDG 4321** Teaching Strategies I 4 hours

### Internship II
- **ESE 4943** Internship II Secondary 12 hours

Minimum Total Semester Hours Needed: 120
Internship I  
EDE 3943  
K-12  
6 hours  

Additional Professional Requirements  
FLE 4063  
Foreign Language Instructional Analysis  
4 hours  
FLE 4314  
Foreign Language Methods K-6  
2 hours  
EDG 3603  
Analysis of Educational Foundations  
3 hours  
EDG 4324  
Teaching Strategies II  
3 hours  

Specialization Requirements  
FLE 3063  
Foreign Language as Human Behavior  
2 hours  
FRE 3244  
French Conversation  
3 hours  
FRE 3240  
French Composition  
3 hours  
FRW 3100  
Survey French Lit I  
3 hours  
FRW 3101  
Survey French Lit II  
3 hours  

Restricted Electives  
4 upper division courses in French  
(with advisor approval)  

Cognate Requirements  
LIN 3010  
Principles of Linguistics OR  
3 hours  
LIN 4440  
Sounds and Forms of Language OR  
3 hours  
LIN 4801  
Language and Meaning  
3 hours  
ANT 3410  
Cultural Anthropology (Anthropology II)  
3 hours  

Internship II  
EDE 4943  
Internship II Elementary OR  
12 hours  
ESE 4943  
Internship II Secondary  
12 hours  

Minimum Total Semester Hours Needed  
125  

Bachelor of Science: Foreign Language Education - Spanish  
1. See Undergraduate Degree Requirements  
2. See special college and/or department requirements  
3. UCF Residency Requirements: 33 hours  

Preprofessional Requirements  
SPC 1600  
Fundamentals of Oral Communication  
3 hours  
PSY 2013  
General Psychology OR  
3 hours  
SYG 2000  
General Sociology  
3 hours  
MAC 1104  
College Algebra OR  
3 hours  
MGF 1203  
Finite Math  
3 hours  
SPN 2231  
Inter Spanish Language and Civilization  
3 hours  

Prerequisites to Internship I  
EDG 4321  
Teaching Strategies I  
4 hours  

RECOMMENDED:  
EDF 4214  
Classroom Learning Principles  
3 hours  

Internship I  
EDE 3940  
K-12  
6 hours  

Additional Professional Requirements  
FLE 4360  
Foreign Language Instructional Analysis  
4 hours  
FLE 4xxx  
Foreign Language Methods K-6  
2 hours  
EDF 3603  
Analysis of Educational Foundations  
3 hours  
EDG 4324  
Teaching Strategies II  
3 hours  

Specialization Requirements  
FLE 3063  
Foreign Language as Human Behavior  
2 hours  
SPN 3241  
Spanish Conversation  
3 hours  
SPN 3420  
Spanish Composition  
3 hours  
SPW 3100  
Survey Spanish Lit I  
3 hours  
SPW 3101  
Survey Spanish Lit II  
3 hours  

Restricted Electives  
4 upper division courses in Spanish  
(with advisor approval)
### Bachelor of Science: Mathematics Education

1. See Undergraduate Degree Requirements
2. See special college and/or department requirements
3. UCF Residency Requirements: 33 hours

**Preprofessional Requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<td>SPC 1600</td>
<td>Fundamentals of Oral Communication</td>
<td>3</td>
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<tr>
<td>PSY 2013</td>
<td>General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>MAC 1104</td>
<td>College Algebra OR</td>
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<tr>
<td>MGF 1203</td>
<td>Finite Math</td>
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<tr>
<td>CGS 1060</td>
<td>Introduction to Computer Science</td>
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**Prerequisite to Internship I**

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**Internship I**

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**Additional Professional Requirements**

**Specialization Requirements**

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<td>MAC 3311</td>
<td>Calculus with Analytic Geometry I</td>
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<td>MAC 3312</td>
<td>Calculus with Analytic Geometry II</td>
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<tr>
<td>MAS 3105</td>
<td>Elementary Linear and Matrix Algebra</td>
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<td>MAS 3203</td>
<td>Number Theory</td>
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<td>MGF 2300</td>
<td>Logic and Proof in Mathematics</td>
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<td>MTG 4212</td>
<td>Modern Geometry</td>
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<td>STA 3023</td>
<td>Statistical Methods I</td>
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<td>MAE 4634</td>
<td>Programs in Teaching of Mathematics</td>
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<td>MHF 4404</td>
<td>History of Mathematics</td>
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**Restricted Electives - Select One (with advisor approval)**

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<td>MAC 3313</td>
<td>Calculus with Analytic Geometry III</td>
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<td>MAD 4203</td>
<td>Combinatorics and Graph Theory</td>
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<td>MAC 4301</td>
<td>Algebra Structure</td>
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<td>Linear Algebra</td>
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**Internship II Internship**

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<tr>
<td>ESE 4943</td>
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<td>12</td>
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Minimum Total Semester Hours Needed: 125

### Bachelor of Science: Science Education - Biology

1. See Undergraduate Degree Requirements
2. See special college and/or department requirements
3. UCF Residency Requirements: 33 hours

**Preprofessional Requirements**

<table>
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<th>Title</th>
<th>Hours</th>
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<td>Fundamentals of Oral Communication</td>
<td>3</td>
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<tr>
<td>STA 2014</td>
<td>Principles of Statistics OR</td>
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<td>STA 3023</td>
<td>Statistical Methods</td>
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187
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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<tbody>
<tr>
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<td>College Algebra</td>
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<td>PSY 2013</td>
<td>General Psychology OR</td>
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<tr>
<td>SYG 2000</td>
<td>General Sociology</td>
<td>3</td>
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<tr>
<td>Prerequisites to Internship I</td>
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<td></td>
</tr>
<tr>
<td>EDG 4321</td>
<td>Teaching Strategies I</td>
<td>4</td>
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<tr>
<td>EDF 4214</td>
<td>Classroom Learning Principles</td>
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**Internship I**

- ESE 3940 Internship I Secondary 6 hours

**Additional Professional Requirements**

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<td>Analysis of Educational Foundations</td>
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<td>EDG 4324</td>
<td>Teaching Strategies II</td>
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**Specialization Requirements**

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<td>General Botany</td>
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<tr>
<td>PCB 3023</td>
<td>Molecular Cell Biology</td>
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<tr>
<td>PCB 3063</td>
<td>Genetics</td>
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<td>PCB 3063L</td>
<td>Genetics Lab</td>
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<tr>
<td>PCB 3043</td>
<td>Ecology</td>
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<tr>
<td>PCB 3043L</td>
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<td>MCB 3013C</td>
<td>Microbiology</td>
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<tr>
<td>CHM 2205</td>
<td>Introduction to Organic and Biochemistry</td>
<td>5</td>
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<tr>
<td>PCB 4683</td>
<td>Population Biology and Evolution</td>
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**Support Science Requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>CHM 2045</td>
<td>Chemistry Fundamentals I</td>
<td>4</td>
</tr>
<tr>
<td>CHM 2046</td>
<td>Chemistry Fundamentals II</td>
<td>3</td>
</tr>
<tr>
<td>CHM 2046L</td>
<td>Chemistry Fundamentals Lab</td>
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<tr>
<td>PHY 3053C</td>
<td>College Physics I</td>
<td>4</td>
</tr>
<tr>
<td>GLY 1030</td>
<td>Geology and its Applications</td>
<td>3</td>
</tr>
</tbody>
</table>

**Internship II**

- ESE 4943 Internship II Secondary 12 hours

**Bachelor of Science: Science Education - Chemistry**

1. See Undergraduate Degree Requirements
2. See special college and/or department requirements
3. UCF Residency Requirements: 33 hours

**Preprofessional Requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPC 1600</td>
<td>Fundamentals of Oral Communication</td>
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<tr>
<td>STA 2014</td>
<td>Principles of Statistics OR</td>
<td>3</td>
</tr>
<tr>
<td>STA 3023</td>
<td>Statistical Methods</td>
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<tr>
<td>MAC 1104</td>
<td>College Algebra</td>
<td>3</td>
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<tr>
<td>PSY 2013</td>
<td>General Psychology OR</td>
<td>3</td>
</tr>
<tr>
<td>SYG 2000</td>
<td>General Sociology</td>
<td>3</td>
</tr>
</tbody>
</table>

**Prerequisite to Internship I**

- EDG 4321 Teaching Strategies I 4 hours

**RECOMMENDED:**

- EDF 4214 Classroom Learning Principles 3 hours

**Internship I**

- ESE 3940 Internship I- Secondary 6 hours

**Additional Professional Requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>SCE 4360</td>
<td>Science Instructional Analysis</td>
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<tr>
<td>EDF 3603</td>
<td>Analysis of Educational Foundations</td>
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</tr>
<tr>
<td>EDG 4324</td>
<td>Teaching Strategies II</td>
<td>3</td>
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</tbody>
</table>
EDF 4214  Classroom Learning Principles  3 hours
Mathematics Requirements
MAC 1114  College Trigonometry  3 hours
MAC 3311  Calculus with Analytic Geometry I  4 hours
Specialization Requirements
Core Requirements
CHM 2045  Chemistry Fundamentals I  4 hours
CHM 2046  Chemistry Fundamentals II  3 hours
CHM 2046L  Chemistry Fundamentals Laboratory  1 hour
CHM 3120C  Analytical Chemistry  5 hours
CHM 3210  Organic Chemistry I  3 hours
CHM 3211  Organic Chemistry II  3 hours
CHM 3211L  Organic Laboratory Techniques I  2 hours
BCH 4053  Biochemistry I  3 hours
CHM 3410  Physical Chemistry I  4 hours
CHS 3501  Introduction to Forensic Science  3 hours
Support Science Requirements
PHY 3053C  College Physics I  4 hours
PHY 3054C  College Physics II  4 hours
BSC 2010C  General Biology OR  4 hours
GLY 1030  Geology and its Applications  3 hours
Internship II
ESE 4943  Internship II - Secondary  12 hours
Minimum Total Semester Hours Needed  125

Bachelor of Science: Science Education - Physics
1. See Undergraduate Degree Requirements
2. See special college and/or department requirements
3. UCF Residency Requirements: 33 hours
Preprofessional Requirements
SPC 1600  Fundamentals of Oral Communication  3 hours
STA 2014  Principles of Statistics OR  3 hours
STA 3023  Statistical Methods  3 hours
MAC 1104  College Algebra  3 hours
PSY 2013  General Psychology OR  3 hours
SYG 2000  General Sociology  3 hours
Prerequisites to Internship I
EDG 4321  Teaching Strategies I  4 hours
RECOMMENDED:
EDF 4214  Classroom Learning Principles  3 hours
Internship I
ESE 3940  Internship I - Secondary  6 hours
Additional Professional Requirements
SCE 4360  Science Instructional Analysis  4 hours
EDF 3603  Analysis of Educational Foundations  3 hours
EDG 4324  Teaching Strategies II  3 hours
Mathematics Requirements
MAC 3311  Calculus with Analytic Geometry I  4 hours
MAC 3312  Calculus with Analytic Geometry II  4 hours
MAC 3313  Calculus with Analytic Geometry III  4 hours
MAC 3302  Differential Equations  3 hours
Additional Specialization Requirements
PHY 3053C  College Physics I  4 hours
PHY 3054C  College Physics II  4 hours
PHY 3048  Physics for Engineers and Scientists I  3 hours
PHY 3048L  Physics Laboratory for Engineers and Scientists  1 hour
PHY 3049  Physics for Engineers and Scientists II  3 hours
PHY 3049L  Physics Laboratory for Eng and Scientists II  1 hour
PHY 3048 Physics for Engineers and Scientists III 3 hours
PHY 3752C Physics of Scientific Instruments 4 hours

Select 3 SH from the following:
PHY 3221 Mechanics I 3 hours
PHY 3323 Electricity and Magnetism 3 hours
PHY 4604 Wave Mechanics 3 hours

Select 3 SH from the following:
PHY 3503 Thermodynamics 3 hours
PHY 4424 Optics 3 hours

Select 3 SH from the following:
PHZ 3151 Computer Methods in Physics 4 hours
PHY 3802L Intermediate Physics Laboratory 3 hours

Support Science Requirements
CHM 2045 Chemistry Fundamentals I 4 hours
CHM 2046 Chemistry Fundamentals II 3 hours
CHM 2046L Chemistry Fundamentals Laboratory 1 hour
BSC 2010C General Biology OR 4 hours
GLY 1030 Geology and its Applications 3 hours

Internship II
ESE 4943 Internship II - Secondary 12 hours
Minimum Total Semester Hours Needed 125

Bachelor of Science: Social Science Education
1. See Undergraduate Degree Requirements
2. See special college and/or department requirements

Preprofessional Requirements
SPC 1600 Fundamentals of Oral Communication 3 hours
SYG 2000 General Sociology 3 hours
MAC 1104 College Algebra OR 3 hours
MGF 1203 Finite Mathematics 3 hours
PSY 2013 General Psychology 3 hours

Prerequisite to Internship I
EDG 4321 Teaching Strategies I 4 hours

RECOMMENDED:
EDF 4214 Classroom Learning Principles 3 hours

Internship I
ESE 3940 Internship I - Secondary 6 hours

Additional Professional Requirements
SSE 4361 Social Science Instructional Analysis 4 hours
EDF 3603 Analysis of Educational Foundations 3 hours
EDG 4324 Teaching Strategies II 3 hours
EDF 4214 Classroom Learning Principles 3 hours

Specialization Requirements
Lower Division Requirements:
ECO 2013 Principles of Economics I 3 hours
ECO 2023 Principles of Economics II 3 hours
EUH 2000 Western Civilization I 3 hours
EUH 2001 Western Civilization II 3 hours
AMH 2010 U.S. History: 1492-1877 3 hours
AMH 2020 U.S. History: 1877-Present 3 hours
POS 2041 American National Government 3 hours
PSY 2013 General Psychology 3 hours
SYG 2000 General Sociology 3 hours

Upper Division Requirements:
CPO 3103 Comparative Politics 3 hours
GEO 3370 Resources Geography 3 hours
GEO 3470 World Political Geography 3 hours
AMH 4231 U.S. History: 1914-1945 3 hours
AMH 4270 U.S. History: 1945-Present 3 hours
Restricted Electives (9 hrs.)
American History (Select one)
AMH 3370 American Economic History 3 hours
AMH 4130 American Revolution 3 hours
AMH 4170 Civil War and Reconstruction 3 hours
European History (Select one with approval of advisor.) 3 hours
Political Science (Select one)
POS 3122 State Government and Public Policy 3 hours
POS 3273 Voting and Elections 3 hours
INR 3002 International Relations - Theory and Practice 3 hours
Internship II
ESE 4943 Internship II - Secondary 12 hours
Minimum Total Semester Hours Needed 120

Bachelor of Science:
Vocational Education and Industry Training Business Education
1. See Undergraduate Degree Requirements
2. See special college and/or department requirements

Preprofessional Requirements
SPC 1600 Fundamentals of Oral Communication 3 hours
MAC 1104 College Algebra OR 3 hours
MGF 1203 Finite Mathematics 3 hours
PSY 2013 General Psychology OR 3 hours
SYG 2000 General Sociology 3 hours
Prerequisites to Internship I
Track A: EDG 4321 Teaching Strategies I 4 hours
Track B: EVT 3395 General Methods/Testing Evaluation in Vocational Education
Internship I ESE 3940 Internship I - Secondary 6 hours
Professional Preparation (Select A or B)
A. Area of Emphasis - Public School Teaching
EDF 3603 Analysis of Educational Foundations 3 hours
EDF 4214 Classroom Learning Principles 3 hours
Tech elective approved by advisor 3 hours
B. Area of Emphasis - Industry Training
EVT 4169 Curr Dev Techniques for Industry Training 3 hours
ADE 4382 Teaching Adult Learners 3 hours
Instructional Core (Select A or B)
A. Area of Emphasis - Public School Teaching
EVT 3502 Special Needs of Vocational Students 4 hours
EVT 4065 Principles and Practices of Vocational Education 4 hours
EDG 4324 Teaching Strategies II 3 hours
B. Area of Emphasis - Industry Training
EVT 3502 Special Needs of Vocational Students 4 hours
EVT 4065 Principles and Practices of Vocational Ed 4 hours
EVT 4368 Advanced Teaching Techniques for Voc Ed 3 hours
Special Methods of Teaching
BTE 4410 Course Construction in Business Education 4 hours
Directed Field Experience
ESE 4943 Internship II Secondary 12 hours
Occupational Specialization
OST 1335 Business Communication 3 hours
OST 1110 Intermediate Typewriting 3 hours
OST 2120 Advanced Typewriting 3 hours
OST 2766 Word Perfect 3 hours
Bachelor of Science:  
Vocational Education and Industry Training Health Occupations

1. See Undergraduate Degree Requirements  
2. See special college and/or department requirements

Preprofessional Requirements  
- SPC 1600 Fundamentals of Oral Communication 3 hours  
- MAC 1104 College Algebra OR 3 hours  
- MGF 1203 Finite Mathematics 3 hours  
- PSY 2013 General Psychology OR 3 hours  
- SYG 2000 General Sociology 3 hours  

Professional Preparation (Select A or B)

A. Area of Emphasis - Public School Teaching  
- EDF 3603 Analysis of Educational Foundations 3 hours  
- EDF 4214 Classroom Learning Principles 3 hours  
- Tech elective with advisor approval 3 hours

B. Area of Emphasis - Industry Training  
- EVT 4169 Curr Dev Techniques for Industry Training 3 hours  
- ADE 4382 Teaching Adult Learners 3 hours  
- Tech elective with advisor approval 3 hours

Instructional Core  
- EVT 3365 General Methods/Testing Evaluation in Voc Ed 4 hours  
- EVT 3502 Special Needs of Vocational Students 4 hours  
- EVT 4065 Principles and Practices of Vocational Ed 4 hours  
- EVT 4368 Advanced Teaching Techniques for Voc Ed 3 hours

Special Methods of Teaching  
- EVT 3312 Course Construction in Health Occupations Ed 4 hours

Directed Field Experience  
- EDG 4941 Directed Field Experience 12 hours

Specialization (30)  
1. Students must complete an area of specialization through (1) occupational specific coursework and/or (2) credit by examination. Occupational specific coursework may be lower or upper division and may be transferred from accredited educational institutions offering college credit. Credit by examination may be completed by meeting the state or national licensure or registration requirements for the student’s area of specialization. A copy of current licensure/registration is required. Specialization credit must be completed before student is eligible for EDG 4941, Directed Field Experience.  
2. Students must provide documentation of at least two years of occupational related work experience prior to graduation.  
- Electives (10)  
- Must be upper division courses

Minimum Total Semester Hours 120  

Bachelor of Science:  
Vocational Education and Industry Training Industrial/Technical

1. See Undergraduate Degree Requirements  
2. See special college and/or department requirements
Preprofessional Requirements

SPC 1600 Fundamentals of Oral Communication 3 hours
MAC 1104 College Algebra OR 3 hours
MGF 1203 Finite Mathematics 3 hours
PSY 2013 General Psychology OR 3 hours
SYG 2000 General Sociology 3 hours

Professional Preparation (Select A or B)

A. Area of Emphasis - Public School Teaching
EDF 3603 Analysis of Educational Foundations 3 hours
EDF 4214 Classroom Learning Principles 3 hours
Tech elective with advisor approval 3 hours

B. Area of Emphasis - Industry Training
EVT 4169 Curr Dev Tech for Industry Training 3 hours
ADE 4382 Teaching Adult Learners 3 hours
Tech elective with advisor approval 3 hours

Instructional Core
EVT 3365 Gen Methods/Testing Eval in Voc Ed 4 hours
EVT 3502 Special Needs of Vocational Students 4 hours
EVT 4065 Prin and Practices of Voc Edn 4 hours
EVT 4368 Adv Teaching Tech for Voc Ed 3 hours

Special Methods of Teaching
EVT 3371 Course Construction Industrial Education 4 hours

Directed Field Experience
EDG 4941 Directed Field Experience 12 hours

Specialization (30)

1. Students must complete an area of specialization through (1) occupational specific coursework and/or (2) credit by examination. Occupational specific coursework may be lower or upper division and may be transferred from accredited educational institutions offering college credit. Credit by examination may be completed by meeting the state or national licensure or registration requirements for the student's area of specialization. A copy of current licensure/registration is required. Specialization credit must be completed before student is eligible for EDG 4941, Directed Field Experience.

2. Students must provide documentation of at least two years of occupational related work experience prior to graduation.

Electives (10)
Must be upper division courses.

Minimum Total Semester Hours 120
COLLEGE OF ENGINEERING

UNDERGRADUATE PROGRAMS

ENGINEERING
Aerospace Engineering (BSAE)
Civil Engineering (BSCE)
Computer Engineering (BSCpE)
Electrical Engineering (BSEE)
Environmental Engineering (BSEnvE)
Industrial Engineering (BSIE)
Mechanical Engineering (BSME)

ENGINEERING TECHNOLOGY
Electrical Engineering Technology (BSEET)
Concentrations in:
   Electrical Systems
   Information Systems
   Engineering Technology (BSET)
Concentrations in:
   Design
   Operations

GRADUATE PROGRAMS *

Masters Degree Programs
Civil Engineering
   Transportation Systems
   Water Resources
   Structures and Foundations
Environmental Engineering
   Environmental Sciences
Electrical Engineering
   Optical Sciences and Engineering
Computer Engineering
Industrial Engineering
   Manufacturing Engineering
   Computer Integrated Manufacturing
   Engineering Management
   Product Assurance Engineering
   Operations Research
   Simulation Systems
Mechanical Engineering
   Aerospace Systems
   Materials Sciences and Engineering
   Mechanical Systems
   Thermo-Fluids

Doctoral Degree Programs
Civil Engineering
Computer Engineering
Electrical Engineering
Environmental Engineering
Industrial Engineering
Mechanical Engineering
Optical Sciences and Engineering

Recent legislation has mandated changes in program admission prerequisites, program length, and course levels. This document may not include the final versions of these changes. See your college advisor for current information.
Students who seek a challenging technical career in research and development, design, technical sales, manufacturing, management, teaching, or other professions requiring a methodical, creative solution to problems should seriously consider pursuing an education in engineering. The internationally-recognized faculty of the College of Engineering, together with its strong curricula of undergraduate and graduate programs provide an opportunity for ambitious, responsible men and women to become the leaders of our increasingly technological world. Because of the significance of science and technology to our everyday lives, today's engineer must be aware of the impact of his or her creations on society. In addition to the public health and welfare, aesthetics, economics, and energy-use implications, engineers must also consider environmental, sociological, and other "humanistic" costs. The engineering degree is also recognized as a valuable asset to those entering other professional pursuits such as the medical or law professions, architecture, or even politics.

PROGRAM OBJECTIVES

The College of Engineering seeks to produce well-qualified graduates in specifically selected disciplines, conduct research efforts of significance to the state and to the nation, and to provide technical services and expertise to the local community. In keeping with the national aspiration of maintaining excellence in science and engineering, the primary objectives of the undergraduate programs are to:

• Encourage the mastery of engineering theories and principles
• Develop competence in design, modeling, and problem solving
• Provide hands-on experience for experiment design and safety
• Improve skills in oral, written, and graphical communication
• Introduce the student to ethical and professional demeanor

COLLEGE ORGANIZATION

The College of Engineering is organized into five departments: Civil and Environmental; Electrical and Computer; Industrial; Mechanical and Aerospace; and Engineering Technology. Seven engineering programs and two engineering-technology programs are offered within the five departments. In addition, there are several options or concentrations that are available. All departments (except Engineering Technology) offer advanced studies leading to master's degrees and the Doctor of Philosophy degree; see the Graduate catalog. The College also houses the Air Force and Army ROTC units for those students wishing to pursue military training while earning their degree.

All undergraduate engineering and engineering technology programs are accredited respectively by the Engineering Accreditation Commission (EAC) and Technology Accreditation Commission (TAC) of the Accreditation Board for Engineering and Technology (ABET).

UNDERGRADUATE CURRICULA AND DEGREES

The first-year curriculum is nearly common for all undergraduates in that the initial areas of study will concentrate on the basic sciences and mathematics. The General Education Program (see Undergraduate Degree Requirements) is also begun during the first year and, ideally, will be integrated continuously into the entire undergraduate experience. Entering students receive assistance in planning their program and typically will undergo an orientation to the University and the College. It is not necessary to choose a major immediately, but students should make that choice as early as possible.

The engineering curricula offers programs of study leading to Bachelor of Science Degrees in aerospace, computer, civil, electrical, environmental, industrial, and mechanical engineering, as well as electrical engineering technology and engineering technology with options. The
College of Engineering graduation requirements include the satisfactory completion of 128 semester hours. Engineering students must earn a Grade Point Average (GPA) of 2.25 in specified required courses and engineering technology students must maintain a 2.00 GPA in all courses.

It is possible for a student to earn two degrees concurrently in two majors, e.g. aerospace and mechanical engineering. The university (catalog) policy states that a minimum of 30 additional residency hours is required; however, the interested student should consult with his/her advisor for the specific college and/or departmental requirements. In general, the student is encouraged to spend the time more efficiently pursuing a graduate degree.

Students entering any of the engineering programs should be adequately prepared at the secondary school (or higher) level in the following basic disciplines, in addition to the minimum University entrance requirements.

- mathematics through trigonometry
- physics
- chemistry
- biology
- introduction to computers; computer programming

These requirements should not be ignored; those students lacking these credits may be required to complete additional course work which is not applied toward the degree.

TRANSFER PROGRAM

Students having a non-engineering degree, or those holding a two-year degree from a community college may apply for admission to the College of Engineering through the University Admissions Office. Those applicants having the Associate of Arts degree from a Florida community college are essentially guaranteed admission; there are no additional criteria or entrance restrictions for the College. The Florida common-course-numbering system ensures that those courses being transferred into the student's program can be readily evaluated for concurrence with required courses. Petitioning for those courses under question, or those from other university systems, will be accomplished through the college Office of Undergraduate Affairs. It should be noted that students may complete all of their requirements in the General Education Program, as well as the requirements for mathematics and the basic sciences, at most of Florida's community colleges. Those students entering from the community colleges may use the catalog year associated with their entry into that earlier program assuming they have maintained continuous enrollment; see Undergraduate Degree Requirements. It is also possible to take some lower-division courses concurrently at the University and the community college using the Transient Student form available from Undergraduate Affairs. This option is not available during the last 30 hours of study.

Transfer students must also be aware that: 1) at least 25 percent of their program credit hours must be done in residency, and 2) if they should enter with less than 60 semester hours of credit, they must enroll for at least 9 hours, on campus, during any summer session.

THE ENGINEERING INTERN (EI) EXAMINATION

The EI (Engineering Fundamentals) examination is a state-administered, nationally-sponsored test that represents a defined standard of technical competency and serves as an initial step toward registration as a Professional Engineer. Students in the civil, environmental, and industrial engineering programs must take the examination prior to graduation. Students in the other engineering disciplines are strongly encouraged to sit for the exam, since they probably will never be better prepared. The examination is conducted in the months of April and October with applications due no less than six months prior to the examination date. Applications are available in the Office of Undergraduate Affairs. Inquiries concerning the exam should be directed to the Florida Board of Professional Engineers, Phone: (904) 488-9912.

STUDENT ACTIVITIES

Each major in the College of Engineering has a technical society open to all students enrolled in the major, in most cases, they are student chapters of nationally recognized professional organizations. The students who maintain membership in these societies may meet with the senior industrial members at regularly scheduled meetings and are rewarded, both socially and educationally, by such contacts. In addition, many of these groups are
involved in inter-university design/presentation/model competitions that can further enhance the total university experience.

PROGRAM SCHEDULES

Following is a listing of tentative schedules for entering students in each of the degree programs, shown for the purpose of indicating the level of effort required to complete the program in a timely manner, and to provide information regarding course prerequisites. The student should study his/her relevant schedule carefully and refer to the catalog or a department advisor to answer questions before they become a problem.

DEPARTMENT OF CIVIL AND ENVIRONMENTAL ENGINEERING

Chair: A.E. Radwan, EN 207, Phone (407) 823-2841
Faculty: Abdel-Aty, Al-Deek, Block, Chopra, Cooper, Dietz, Hartman, Head, Kunnath, Kuo, Mirmiran, Nnadi, Onyemelukwe, Randall, Reinhart, J. Taylor, Wanielista, Wayson, Yousef

The Department offers degrees in both Civil Engineering and Environmental Engineering. The Civil Engineering major is concerned primarily with fundamental civil engineering design and analysis in such areas as structures, geotechnical engineering, sanitary engineering, water resources, and transportation engineering. The Environmental Engineering major is concerned primarily with the interactions with humans and their environment and the planning, design, and control of systems for environmental quality management for water, land, and air environments.

Tentative Course Schedule for Entering Freshmen

Civil Engineering - 128 semester hours required

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<thead>
<tr>
<th>YEAR</th>
<th>Term</th>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<td>FIRST</td>
<td>Fall (14)</td>
<td>ENC 1101</td>
<td>Eng . Comp .</td>
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<td></td>
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<td>CHM 2045</td>
<td>Chem Fund I</td>
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<td>MAC 2311</td>
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<td>SECOND</td>
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<td>MAC 2313</td>
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<td>PHY 2049</td>
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<td>Summer (9)</td>
<td>SUR 3101</td>
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<td>EGN 3331</td>
<td>Mechanics of Materials</td>
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<td>EGN 3343</td>
<td>Thermodynamics</td>
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<td>THIRD</td>
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<td>CWR 3201</td>
<td>Engr Fluid Mech</td>
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<td>EGN 3373</td>
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<td>Prob/Stat Engrs</td>
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<td>FOURTH</td>
<td>Fall (15)</td>
<td>TTE 4004</td>
<td>Transportation Engr</td>
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<td>ENV 4561</td>
<td>Process Design</td>
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<td>CEG 4101C</td>
<td>Geotechnical Engr</td>
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<td>CES 4702</td>
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<td>Project Design Course</td>
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<td></td>
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<td>Project Design Course (3)</td>
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</table>

Notes:
1) Nine (9) hours minimum summer attendance required by Florida state law.
2) Students should check with CEE Department Course Planning Calendar for terms when courses are typically offered. Students should check with their advisor to ensure they are making proper progress towards the degree.

3) Courses indicated with an asterisk (*) can typically be taken within a pre-engineering A.A at a Florida Community College.

4) Students should check CEE Department handout for recommended Technical Electives as well as approved Project Design courses.

Environmental Engineering

FIRST YEAR Fall (14)
* ENC 1101-Engl Comp (3)
* CHM 2045-Chem Fund I (4)
* MAC 2311-Calculus I (4)
* ECO 2013-Macro Economics (3)

SECOND YEAR Fall (15)
* MAC 2313-Calculus III (4)
* PHY 2049-Physics Engr II (3)
* HUM/AMH/EUH-I (3)
EGN 3310-Statics (3)
EGN 3613-Engr Econ Anal (2)

Summer (9)
* HUM/AMH/EUH-II (3)
* ANT/PSY/SYG or * GEO/GLY/BSC (3)
EGN 3343-Thermodynamics (3)

THIRD YEAR Fall (16)
CWR 3201-Engr Fluid Mechanics (3)
EGN 3331-Mechanics of Materials (3)
STA 3032-Prob/Stat Engrs (3)
EGN 3365-Materials (3)
EGN 3373-Prin Elec Engr (4)

FOURTH YEAR Fall (16)
ENV 4563 - Environ Control Systems
EGN 4624 - Engineering Admin(3)
EES 4202C-Chemical Processes (3)
ENV 4561-Process Design (4)
Technical Elective(3)

Notes:
1) Nine (9) hours minimum summer attendance required by Florida state law.
2) Students should check with CEE Department Course Planning Calendar for terms when courses are typically offered. Students should check with their advisor to ensure they are making proper progress towards the degree.
3) Courses indicated with an asterisk (*) can typically be taken within a pre-engineering A.A at a Florida Community College.
4) Students should check CEE Department handout for recommended Technical Electives as well as approved Project Design courses.
The majors in Electrical Engineering and Computer Engineering are designed to present the basic principles, as well as in-depth studies of specific sub-disciplines, such as communication systems, controls, robotics, digital signal and image processing, computer architecture, digital systems, software engineering and knowledge-based systems, electronics, electro-optics, microwaves and antennas, microelectronics, and solid-state devices.

The Tentative Course Schedule for Entering Freshmen

**Computer Engineering - 128 semester hours required**

**FIRST YEAR**

**Fall (15 hrs)**
- *MAC 3311-Calculus I*
- *ENC 1101-English Comp*
- *Humanities/History*
- EGN 1111C-Engr Comp Graphics
- *ECO 2013-Economics*

**Spring (17 hrs)**
- *MAC 3312-Calculus II*
- *ENC 1102-English Comp*
- *PHY 3048-Physics Engr I*
- CHS 1440-Chem for Engr (CHM 2045/2046)
- *SPC 1XXX-Technical Presentations*

**Summer (10 hours)**
- *MAC 3313-Calculus III*
- *Humanities/History*
- *Social Science*

**SECOND YEAR**

**Fall (16 hrs)**
- *MAP 3302-Differential Equations*
- EGN 3310-Statics
- *PHY 3049-Physics Engr II w/Lab*
- *Earth Science*
- EGN 3420-Engineering Analysis

**Spring (16 hrs)**
- EGN 3321-Dynamics
  or
  EGN 3358-Thermo-Fluids
- EGN 3373-Prin Electrical Engr
- EEL 3342C-Intro Digital Circuits
- PHY 3101 Physics Engr III
- EEL 3801C-Intro Comp Engr

**THIRD YEAR**

**Fall (14 hrs)**
- EEL 3122C-Electrical Networks
- STA 3032-Prob & Statistics for Engrs.
- EEL 3306-Semiconductor Devices
- EEL 4851-Engr. Data Structure

**Spring (14 hrs)**
- EEL 3657-Linear Control Systems
- EEL 3307C-Electronics I
- EEL 4882-Engr. Systems Software
- EEL 4767C-Comp. Syst. Design I

**FOURTH YEAR**

**Fall (13 hrs)**
- EEL 4884-Engr Software Design
- EEL 4768C-Comp. Syst. Des. II
- EEL recommended elective
- EEL recommended elective

**Spring (13 hrs)**
- EEL 4832-Computer Methods
- EEL 4012C-Senior Design
- EEL recommended elective
  * Humanities Elective*

Notes:
1) Courses marked (*) are available from the community colleges and are often part of the pre-engineering Associate of Arts Degree (and satisfy the General Education Program).
2) Current program requirements include 8 hours of technical elective credits.
   Please see Computer Engineering academic Advisor for available courses to meet these requirements.
3) Students should consult their department for terms when courses are typically offered.
3) Students should consult with department for recommended electives or approved design courses.
4) Summer session required by law; see Transfer Program.
5) Computer Engineering students must earn at least 33 hours in residence at UCF.

**Electrical Engineering - 128 semester hours required**

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<thead>
<tr>
<th>FIRST YEAR</th>
<th>Spring (17 hrs)</th>
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<tbody>
<tr>
<td>Fall (15 hrs)</td>
<td>MAC 3311-Calculus I</td>
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<tr>
<td>MAC 3311-Calculus I</td>
<td>ENC 1101-English Comp</td>
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<tr>
<td>ENC 1101-English Comp</td>
<td>Humanities/History</td>
</tr>
<tr>
<td>Humanities/History</td>
<td>EGN 1111C-Engr Comp Graphics</td>
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<td>EGN 1111C-Engr Comp Graphics</td>
<td>ECO 2013-Economics</td>
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<tr>
<td>*MAC 3312-Calculus II</td>
<td>*ENC 1102-English Comp</td>
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<td>*ENC 1102-English Comp</td>
<td>*PHY 3048-Physics Engr I</td>
</tr>
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<td>*PHY 3048-Physics Engr I</td>
<td>CHS 1440-Chem for Engr (CHM 2045/2046)</td>
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<td>CHS 1440-Chem for Engr (CHM 2045/2046)</td>
<td>*SPC 1XXX-Technical Presentations</td>
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<tr>
<td>Summer (10 hours)</td>
<td>*MAC 3313-Calculus III</td>
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<td>*MAC 3313-Calculus III</td>
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<td>MAP 3302-Differential Equations</td>
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<td>MAP 3302-Differential Equations</td>
<td>EGN 3310-Statics</td>
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<tr>
<td>EGN 3310-Statics</td>
<td>PHY 3049-Physics Engr II w/Lab</td>
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<td>PHY 3049-Physics Engr II w/Lab</td>
<td>Earth Science</td>
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<tr>
<td>Earth Science</td>
<td>EGN 3420-Engineering Analysis</td>
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<td>Summer (10 hours)</td>
<td>*MAC 3313-Calculus III</td>
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<tbody>
<tr>
<td>Fall (14 hrs)</td>
<td>MAP 3302-Differential Equations</td>
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<td>MAP 3302-Differential Equations</td>
<td>EGN 3310-Statics</td>
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<td>PHY 3049-Physics Engr II w/Lab</td>
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<td>*MAC 3312-Calculus II</td>
<td>*ENC 1102-English Comp</td>
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<td>*ENC 1102-English Comp</td>
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<td>*PHY 3048-Physics Engr I</td>
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<tr>
<td>Summer (10 hours)</td>
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<td>Humanities/History</td>
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<table>
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<th>FOURTH YEAR</th>
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<tbody>
<tr>
<td>Fall (13 hrs)</td>
<td>EEL 3122C-Electrical Networks</td>
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<tr>
<td>EEL 3122C-Electrical Networks</td>
<td>STA 3032 Statistics</td>
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<td>STA 3032 Statistics</td>
<td>EEL 3306-Semiconductor Devices I</td>
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<td>EEL 3306-Semiconductor Devices I</td>
<td>EEL 4767C-Comp. Syst. Design I</td>
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<td>EEL 4767C-Comp. Syst. Design I</td>
<td>*MAC 3312-Calculus II</td>
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<tr>
<td>*MAC 3312-Calculus II</td>
<td>*ENC 1102-English Comp</td>
</tr>
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<td>*ENC 1102-English Comp</td>
<td>*PHY 3048-Physics Engr I</td>
</tr>
<tr>
<td>*PHY 3048-Physics Engr I</td>
<td>CHS 1440-Chem for Engr (CHM 2045/2046)</td>
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<td>CHS 1440-Chem for Engr (CHM 2045/2046)</td>
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<tr>
<td>Summer (10 hours)</td>
<td>*MAC 3313-Calculus III</td>
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<td>*MAC 3313-Calculus III</td>
<td>Humanities/History</td>
</tr>
<tr>
<td>Humanities/History</td>
<td>Social Science</td>
</tr>
</tbody>
</table>

| | Spring (16 hrs) |
| | EEL 3321-Dynamics |
| | or |
| | EGN 3358-Thermo-Fluids |
| | EGN 3373-Prin Electrical Engr |
| | EEL 3342C-Intro Digital Circuits |
| | PHY 3101 Physics Engr III |
| | EEL 3801C-Intro Comp Engr |
| | Spring (14 hrs) |
| | EEL 3307C-Electronics I |
| | EEL 3470-Electromagnetic Fields |
| | EEL 3552C-Signals |
| | EEL 4750 Dig. Signal Proc. Fund. |
| | Spring (13 hrs) |
| | EEL 4012C Senior Design |
| | EEL recommended elective (3) |
| | EEL recommended elective (3) |
| | Humanities Elective |

Notes: 1) Courses marked (*) are available from the community colleges and are often part of the pre-engineering Associate of Arts Degree (and satisfies the General Education Program).
2) Students should consult their department for terms when courses are typically offered.
3) Students should consult with department for recommended electives or approved design courses.
4) Summer session required by law; see Transfer Program.
5) Electrical Engineering students must earn at least 33 hours in residence at UCF.

**DEPARTMENT OF INDUSTRIAL ENGINEERING AND MANAGEMENT SYSTEMS**

Chair: Charles H. Reilly, EN 307, Phone (407) 823-2204
Faculty: Armacost, Biegel, Elshennawy, Hoekstra, Hosni, Kotnour, Lee, Malone, McCauley-Bell, McIntosh, Mollaghasemi, Mullens, Pet-Edwards, Proctor, Ragusa, Rogers, Safford, Sepulveda, Stanney, Thompson, Whitehouse, Williams.

Industrial Engineers design systems which translate a specific product design into a physical reality in the most productive manner and with highest possible quality. In doing so, the industrial engineer deals with decisions regarding the right mix and type of people, materials, machines and automation (including robotics). Industrial engineers are also skilled in Engineering Economic Analysis and Information Management since they are generally considered to be the natural interface between the technical specialist and management.

Industrial Engineers are generally sought in industry, service, and governmental organizations. In the industrial sector, the industrial engineer is concerned with improving productivity and quality of the manufacturing, distribution, and management system of organizations. In the service sector, the industrial engineer is concerned with determining the most productive manner in which to deliver high-quality service to the customer. In government organizations the industrial engineer is active in assuring that tax payers receive maximum service for their tax dollars.

The Industrial Engineering approach is characterized by a systematic evaluation of alternatives using quantitative analysis, and computer simulations. As such, quantification and measurement play a key role in the day to day activities of the industrial engineer.

### Tentative Course Schedule for Entering Freshmen

#### Industrial Engineering - 128 semester hours required

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td><strong>Fall (15 hrs)</strong></td>
<td>*MAC 3311-Calculus I</td>
<td>*EIN 1111-Engr Comp Graphics</td>
</tr>
<tr>
<td><strong>Spring (16 hrs)</strong></td>
<td>*MAC 3312-Calculus II</td>
<td>*EIN 3304-Intro to I.E.</td>
</tr>
<tr>
<td><strong>Summer (10 hours)</strong></td>
<td>*MAC 3313-Calculus III</td>
<td>*CHS 1440-Chem for Engr (CHM 2045/2046)</td>
</tr>
<tr>
<td><strong>Fall (15 hrs)</strong></td>
<td>*MAC 3302-Differential Equations</td>
<td>*EIN 3352-Principles of Cost Engr.</td>
</tr>
<tr>
<td><strong>Spring (12 hrs)</strong></td>
<td>*PHY 3048-Physics Engr. I</td>
<td>*STA 3032- Prob &amp; Statistics</td>
</tr>
<tr>
<td><strong>Fall (16 hrs)</strong></td>
<td>*EIN 4118-IE Application of Comp</td>
<td>*EIN 4391-Manufacturing Engr.</td>
</tr>
<tr>
<td><strong>Spring (14 hrs)</strong></td>
<td>*EIN 3314-Work Measurement</td>
<td>*EGN 3365-Materials</td>
</tr>
<tr>
<td><strong>Fall (15 hrs)</strong></td>
<td>*EIN 4391-Manufacturing Engr.</td>
<td>*EGN 3373-Prin. of Elect. Engr</td>
</tr>
<tr>
<td><strong>Spring (15 hrs)</strong></td>
<td>*ESI 4523-Systems Simulation</td>
<td>*EGN 3321-Dynamics</td>
</tr>
<tr>
<td><strong>Fall (15 hrs)</strong></td>
<td>*EIN 4116-System Analysis</td>
<td>*ESI 4234-Quality Engr</td>
</tr>
<tr>
<td><strong>Fourth Year</strong></td>
<td>*TECHNICAL ELECTIVE</td>
<td></td>
</tr>
</tbody>
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201
Technical elective
*Humanities elective
EIN 4634-Industrial Facility Plan.

Notes: 1) Courses marked (*) are available from the community colleges and are often part of the pre-engineering Associate of Arts Degree (and satisfy the General Education Program).
2) Students should consult their department for terms when courses are typically offered.
3) Students should consult with department for recommended electives or approved design courses.
4) Summer session required by law; see Transfer Program.
5) Industrial Engineering students must earn at least 33 hours in residence at UCF.

DEPARTMENT OF
MECHANICAL, MATERIALS, AND AEROSPACE ENGINEERING
Chair: L. Chow, EN 381, Phone (407) 823-2416
Faculty: Bishop, R. Byers, Chen, Chew, Desai, Eno, Giannuzzi, Hagedoorn, Hosler, R. Johnson, Kar, Kassab, K. Lin, McBrayer, Minardi, Mosleh, Nayfeh, Nicholson, Nuckolls, Pais, Rice, W. Smith, Ventre
Joint Appointments: Chai, Debnath, Dhere, Nimmo, K. Richardson, Vajravelu

The Department of Mechanical and Aerospace Engineering offers undergraduate degree programs in Mechanical Engineering and Aerospace Engineering. Mechanical Engineering emphasizes design and addresses the science and technology of energy, machine, and manufacturing systems. Aerospace Engineering likewise emphasizes design, and addresses the science and technology of aeronautical and space systems. Both programs are crafted to provide a broadly based foundation for professional engineering careers and for lifelong learning. Individual courses within the programs challenge students to understand basic principles and their application, and to master advanced approaches in seeking solutions. Design, laboratory, and computer-based activities are pervasive. The capstone design and measurements courses incorporate major projects involving students in 'real world' problems. Students in the Mechanical Engineering program are expected to follow one of the three options illustrated below: Energy Systems, Mechanical Systems, and Materials.

Tentative Course Schedule for Entering Freshmen

Aerospace Engineering - 128 semester hours required

FIRST YEAR
Fall (16 hrs)
**ENC 1101-English Comp
**CHS 1440-Chem Engrs (CHM 2045/2046)
**MAC 3311-Calculus I
EGN 1111C-Eng Comp Graphics
**ECO 2013-Economics

Spring (14 hrs)
**ENC 1102-English Comp
**MAP 3302-Differential Eqns
**PHY 3049-Physics Engr I with Lab
EGN 1111C-Eng Comp Graphics

SECOND YEAR
Fall (14 hrs)
STA 3032-Prob/Statistics
**MAP 3302-Differential Eqns
**PHY 3049-Physics Engr II
EGN 3310-Statics

Summer (10 hrs)
**MAC 3313-Calculus III
**SGY 2000 - Gen Sociology

Spring (14 hrs)
EML 3601-Solid Mechanics

THIRD YEAR
Fall (15 hrs)
EML 3601- Solid Mechanics

Spring (14 hrs)
EAS 3010-Fund. of Aerospace Flight

EML 3034-Modeling Methods in MAE
EML 3701-Fluid Mechanics
EAS 3800C-Aero Engr Measurements
EML 3312C- Feedback Control
*Humanities/History

FOURTH YEAR
Fall (15 hrs)
EAS 4200-Flight Structures
EAS 4105-Flight Mechanics
EAS 4700C-Aero Design I
EAS 4134-High Speed Aero
*Humanities/History

Notes: 1) Courses marked (*) are available from the community colleges and are often part of the pre-engineering Associate of Arts Degree (and satisfy the General Education Program).
2) Humanities/History must include AMH 2010/2020 or EUH 2000/2001 or HUM 2211/2230 and another approved Cultural /Historical elective (see general education agreements).
3) Students should consult their department for terms when courses are typically offered.
4) Students should consult the department for approved technical electives. These courses generally carry an EAS, EMA or EML prefix.
5) See: Summer Attendance Requirement and. See also: Paragraph on Transfer Program at the beginning of this chapter on College of Engineering.
6) Aerospace engineering students must earn at least 33 credit hours in residence at UCF.

Mechanical Engineering - 128 semester hours required

FIRST YEAR
Fall (16 hrs)
*MAC 3311-Calculus I
*ENC 1101-English Comp
CHS 1440-Chem Engrs (CHM 2045/2046)
EGN 1111C-Engr Comp Graphics
*ECO 2013-Economics

Spring (14 hrs)
*MAC 3312-Calculus II
*ENC 1102-English Comp
*PHY 3048-Physics Engr I with Lab
SPC 1605-Technical Presentations

SECOND YEAR
Fall (15 hrs)
*MAP 3302-Differential Equations
EGN 3310-Statics
*PHY 3049-Phys Engr II
STA 3032-Prob/Statistics
*Humanities/History

Spring (16 hrs)
EGN 3321-Dynamics
EGN 3365-Struct/Prop Materials
EML 3034-Modeling Methods in MAE
EGN 3373-Prin Electrical Engr
EGN 3343-Thermodynamics

THIRD YEAR
Fall (15 hrs)
EML 3601-Solid Mechanics
EML 3701-Fluid Mechanics

Spring (15 hrs)
EML 4535C-CAD/CAM
EML 4220-Vibrations
FOURTH YEAR

I. ENERGY SYSTEMS OPTION

Fall (14 hrs)
- EML 3101-M.E. Thermo
- EML 4703C-Fluids II
- EML 4501C-Engr Design I
- EML 4304C-Energy Systems Lab
- Restricted Elective

Spring (13 hrs)
- EML 3101-M.E. Thermo
- EML 4703C-Fluids II
- EML 4501C-Engr Design I
- Restricted Elective
- Approved Elective
- *Humanities/History

II. MECHANICAL SYSTEMS OPTION

Fall (15 hrs)
- EML 3262C-Kinematics
- EML 4703C-Fluids II
- EML 4501C-Engr Design I
- EMA 3012C-Exp, Tech Mech/Mat
- Restricted Elective

Spring (12 hrs)
- EML 4502C-Engr Design II
- Restricted Elective
- Approved Elective
- *Humanities/History

III. MATERIALS OPTION

Fall (15 hrs)
- EML 3101-M.E. Thermo
- EML 4501C-Engr Design I
- EMA 3012L-Exp Tech Meth/Mat
- Restricted Elective
- *Humanities/History

Spring (12 hrs)
- EML 4502C-Senior Design II
- EMA 3124-Struct Prop Alloys
- EMA 4223-Deform Frac Mats
- Approved Elective

Notes:
1) Courses marked (*) are available from the community colleges and are often part of the pre-engineering Associate of Arts Degree (and satisfy the General Education Program).
2) Humanities/History must include AMH 2010/2020 or EUH 2000/2001 or HUM 2211/2230 and another approved Cultural/Historical elective (see General Education requirements).
3) Students should consult their department for terms when courses are typically offered.
4) Students should consult with department for a list of restricted and approved technical electives. These courses generally carry an EML, EAS or EMA prefix.
5) See: Summer Attendance Requirement and. See also: Paragraph on Transfer Program at the beginning of this chapter on College of Engineering.
6) Mechanical Engineering students must earn at least 33 credit hours in residence at UCF.

DEPARTMENT OF ENGINEERING TECHNOLOGY

(The Engineering Technology Department is located on the 4th floor of the Pavilion Building in the Central Florida Research Park approximately .7 mile (1.1 km) due South of the main campus. LASER shuttle bus service runs between the main campus and the Pavilion Building.)

Chair: R. Denning
Assistant Chairs: A. Rahrooh, BLLC 277, Phone (407) 631-5366 (Brevard Campus)
Assistant Chairs: R. Coowar, (Orlando Campus)
Faculty: Coowar, Fuehrer, Misconi, Motlach, Osborne, Rahrooh, Tanner, Walsh

Engineering Technology is the profession in which a knowledge of the applied mathematical and natural sciences gained by higher education, experience, and practice is devoted to application of engineering principles and the implementation of technological advances for the benefit of humanity. Engineering Technology education at UCF is broad in nature, focusing primarily on analyzing, applying, implementing and improving existing technologies. This
education enhances the graduate's potential for accepting a wide variety of professional opportunities, for lifelong learning, and for future career advancement.

Two baccalaureate degree programs are offered in engineering technology. They are the:
- Bachelor of Science in Electrical Engineering Technology (BSEET)
- Bachelor of Science in Engineering Technology (BSET)

The bachelor of science degree programs in Electrical Engineering Technology and in Engineering Technology are aimed at preparing graduates for the practice of engineering closest to the product improvement, manufacturing, and engineering operational functions. Students entering either of the curricula in Engineering Technology should be aware that some lower level technical courses may not currently be available at UCF and that the student may need to take a limited number of courses at a community college. Students who wish to be admitted directly into the upper level engineering technology concentration should possess either the A.A. degree, with appropriate technical courses, or an A.S. (or equivalent education) degree from a Florida public college or an approved out-of-state institution in an appropriate engineering technology area. Prospective transfer students not holding the A.A./A.S. degree from a Florida public college are encouraged to apply.

Requirements

Completion of UCF's General Education is required before the BSEET/BSET degree is granted. If a student completes the General Education Program of a Florida public community college, it will substitute for UCF's Lower Division General Education Program without a course-by-course match. Students should consult an advisor for specific course requirements. All Engineering Technology students must earn at least 32 hours in residence at the University.

Bachelor of Science in Electrical Engineering Technology (BSEET)
and Bachelor of Science in Engineering Technology (BSET)

Degree Requirements 128 hours

A. General Education 27 hours

(Not including Mathematics, Science and Computer Programming)

Communications 9 minimum
- ENC 1101/1102 English Composition I/II 6 hours
- SPC 1600 Fundamentals of Oral Communications 3 hours

Cultural and Historical 9 minimum
- EUH 2000/2001 Western Civilization I/II OR 6 hours
- HUM 2211/2230 Western Humanities I/II OR 6 hours
- AMH 2010/2020 U.S. History I/II AND 6 hours

Approved Elective Social Foundations 9 minimum
- ECO 2013 Principles of Economics I 3 hours
- POS 2041 American National Government AND 3 hours
- PSY 2013 General Psychology OR 3 hours
- SYG 2000 General Psychology OR 3 hours
- ANT 2003 General Anthropology 3 hours

B. Engineering Technology Core 41 hours

(A minimum of 24 hours of Mathematics and Science is required)

Mathematics 12 minimum
- MAC 1104 College Algebra 3 hours
- MAC 1114 College Trigonometry AND 3 hours
- MAC 3253/3254 Applied Calculus I/II OR 6 hours
- MAC 3311/3312 Calculus with Analytic Geometry I/II 8 hours

Science 12 minimum
- PHY 3048C/3049C Physics for Engineers & Scientists I/II OR 8 hours
- PHY 3053C/3054C College Physics I/II AND 8 hours
- BSC 1020C Biological Principles OR 4 hours
- BSC 1030C Biology and Environment OR 4 hours
- GLY 1030 Geology and its Applications OR 3 hours

205
GEO 1200 Physical Geology OR
GEO 3370 Resources Geography OR
BOT 1000C Plant Science OR
ANT 3511 Human Species
Other 18 hours
ENC 3241 Technical Report Writing
ETG 3541 Applied Mechanics
ETI 3651C Computer Applications
ETI 3671 Technical Economic Analysis
ETI 4110 Industrial Quality Control
ETI 4635 Technology Administration

Bachelor of Science in Electrical Engineering Technology (BSEET)

Program Coordinator: Rosida Coowar.

This program in electrical engineering technology, leading to the BSEET degree, provides a structured curriculum with instruction in fundamentals and engineering principles applicable toward working with both present and future technologies in a variety of work environments. Graduates may find employment opportunities in such diverse fields as aerospace, instrumentation, computers, communications, consumer products, banking and education. They may become involved in applied design, product development, manufacturing, quality assurance, production and operations as well as activities such as field engineering, sales, system analysis, technical writing and software design, preparation and programming.

The EET program provides two paths of concentration, thereby providing the student a choice between either a hardware or a software emphasis. The concentration in Electrical systems provides a broad based curriculum in electrical/electronic engineering principles, and their application. Instruction and problem solving experiences are provided in both circuit and system aspects including computers, communications, controls and electrical power. The concentration in Information Systems, while providing a firm foundation in electrical/electronics technology, also includes extensive instruction in programming, system design and analysis, and systems programming. Projects in cooperation with local industry, solving real-world problems are required of all students in this concentration.

Electrical Systems

C. Required Lower Division Technical Courses

(ideally scheduled during the freshman and sophomore year) 26 hours

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EET x085C</td>
<td>DC Circuits/AC Circuits with Lab</td>
<td>4 hours</td>
</tr>
<tr>
<td>EET x043C x035C</td>
<td>Electronic Devices and Circuits I/II with Lab</td>
<td>4 hours</td>
</tr>
<tr>
<td>CET 1xxxC</td>
<td>Digital Fundamentals with Lab</td>
<td>4 hours</td>
</tr>
<tr>
<td>CET x123C</td>
<td>Microprocessor Electronics with Lab</td>
<td>3 hours</td>
</tr>
<tr>
<td>COP 1xxx</td>
<td>Approved Computer Programming</td>
<td>3 hours</td>
</tr>
<tr>
<td>Approved Technical Elective</td>
<td>2-8 hours</td>
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</tr>
</tbody>
</table>

D. Upper Division Specialty Courses (Required)

(to be taken in the junior and senior years, prerequisites from groups B. and C.) 23 hours

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>EET 3716C</td>
<td>Network Analysis</td>
<td>4 hours</td>
</tr>
<tr>
<td>CET 3198C</td>
<td>Digital Systems</td>
<td>4 hours</td>
</tr>
<tr>
<td>CET 3303</td>
<td>Microcomputer Technology I</td>
<td>3 hours</td>
</tr>
<tr>
<td>CET 3144C</td>
<td>Applied Microprocessor Technology</td>
<td>3 hours</td>
</tr>
<tr>
<td>CET 4333C</td>
<td>Applied Computer Systems I</td>
<td>4 hours</td>
</tr>
<tr>
<td>EET 3143 C</td>
<td>Electronic Devices and Circuits</td>
<td>4 hours</td>
</tr>
<tr>
<td>CET 4136C</td>
<td>Programmable Digital Devices</td>
<td>4 hours</td>
</tr>
<tr>
<td>EET 4158C</td>
<td>Linear Integrated Circuits</td>
<td>3 hours</td>
</tr>
<tr>
<td>EET 4329C</td>
<td>Communications Systems</td>
<td>4 hours</td>
</tr>
<tr>
<td>EET 4548</td>
<td>Power Systems</td>
<td>3 hours</td>
</tr>
<tr>
<td>EET 4732</td>
<td>Feedback Control Systems AND</td>
<td>3 hours</td>
</tr>
</tbody>
</table>
E. Upper Division Specialty Courses (Electives)

- CET 3364: System Applications in C OR Applied Computer Systems II OR Antennas and Propagation OR Senior Design Project OR Applied Reliability OR Applied Logistics
- CET 4334: Information Systems in OR Electrical Systems Analysis I OR Applied Reliability
- EET 4339: Microprocessor Electronics with Lab OR Applied Reliability OR Applied Logistics
- ETG 4950: Senior Design Project
- ETI 4186: Applied Reliability
- ETI 4205: Applied Logistics

Information Systems

C. Required Lower Division Technical Courses
(ideally scheduled during the freshman and sophomore year)
26 hours minimum
- EET x025C, x043C: DC Circuits/AC Circuits with Lab OR Electricity/Electronics AND
- CET 3123C: Microprocessor Electronics with Lab
- COP xxx0: Pascal Programming
- COP xxx1: Pascal Programming _ Advanced
- COP xxx0: Cobol Programming
- COP xxx1: Cobol Programming _ Advanced
- Approved Technical Elective 0-2 hours

D. Upper Division Specialty Courses (Required)
(to be taken in the junior and senior years _ prerequisites from groups B. and C.)
32 hours
- CET 3303: Microcomputer technology
- CET 3323C: Digital Technology
- CET 3383: Applied Systems Analysis I
- CET 4505: Applied Operating Systems I
- EET 3716C: Network Analysis
- CET 3198C: Digital Systems
- CET 4427: Applied Database I
- CET 4523: Applied Systems Analysis II
- EET 4156C: Linear Integrated Circuits
- ETG 4950C: Senior Design Project

E. Upper Division Specialty Courses (Electives)
3 hours
- COP xxx0: FORTRAN Programming
- COP xxx1: FORTRAN Programming - Advanced
- CET 4138C: Programmable Digital Devices

Technical Electives (Recommended for students planning for Master of Science in Engineering Management)
7 hours
- MAP 3303: Differential Equations
- MAC 3313: Calculus with Analytical Geometry III

Junior Year

Fall
- MAC 3253/3311 Calculus I (3/4)
- ETG 3541 Applied Mechanics (3)
- ETI 4110 Quality Control (3)
- CET 3198C Digital Systems (4)
- ETI 3651C Computer Appl (3)

Spring
- MAC 3254/3312 Calculus II (3/4)
- EET 3716C Network Analys (4)
- CET 3303 Microcom Tech I (3)
- CET 3144C Appl MicProc Tech (3)
- ETI 3671 Tech Econ Anal (2)

Electrical Systems Concentration
Senior Year
Fall
EET 4158C Linear Int Cir (3)
EET 4548 Power Systems (3)
EET 4329 Comm Sys (4)
ENC XXXX Tech Report Writ (3)

Spring
CET 4138C Prog Dig Devs (4)
ETG 4590 Sr Design Proj (3)
EET 4732 Feedback Cont (4)

Information Systems Concentration

Junior Year
Fall
MAC 3253/3311 Calculus I (3/4)
ETG 3541 Appl Mechanics (4)
ETI 4110 Quality Control (3)
CET 4505 Appl Oper Sys I (3)
CET 4427 Appl Data Base I (3)

Spring
MAC 3254/3312 Calculus II (3/4)
EET 3716C Network Analys (4)
CET 3303 Microcom Tech I (3)
CET 3323C Computer Org (3)
CET 3383 Appl Sys Anal I (3)

Senior Year
Fall
EET 4158C Linear Int Cir (3)
ETI 3671 Tech Econ Anal (2)
ETG 4590 Sr Design Proj (3)
ETI 3651C Comp Appl (3)
CET/EET Elective (3)

Spring
CET 4138C Prog Dig Devs (4)
CET 4523C Appl MicProc Tech (3)
CET 3198C Digital Systems (4)
ETI 4635 Tech Admin (3)
ENC XXXX Tech Report Writ (3)

Bachelor of Science in Engineering Technology (BSET)
Program Coordinator: James Walsh, P.E.

The BSET curriculum consists of a carefully integrated program which includes professional studies, liberal education, and applied mathematics and sciences. Through the selection of the upper level technical concentration students can build and tailor their program, based on previous knowledge to assist them to launch a career that best meets their needs and aspirations. The Design concentration provides advanced course work in preparation for employment at the baccalaureate level in the fields of manufacturing, testing and fabrication of mechanical parts, and the building and construction industries. Graduates may become involved in applied design, product development, manufacturing or production, to name but a few. The Operations concentration provides an orientation for professional careers in technical management and operations in the manufacturing, sales, services, and construction industries. Graduates may become involved in many diverse areas including product development, manufacturing, quality assurance and logistics, sales, field engineering, technical writing and safety.

Projects in cooperation with local industry, solving real-world problems, are required of all students in the BSET program. In addition to the engineering technology core, both concentrations in the BSET program have a common lower division core as well as a common upper division core.

C. Required Lower Division Technical Courses

(ideally scheduled during the freshman and sophomore year) minimum
EET X085C Electricity/Electronics 4 hours
CET x123C Microprocessor Electronics with Lab 3 hours
COP xxxx Approved Computer Programming 3 hours
CHM xxxxC General Chemistry and Laboratory 4 hours
Approved Technical Elective 3 hours
Approved Technical Elective 3 hours
Approved Technical Elective 2 hours
Approved Technical Elective 2 hours

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D. Upper Division Required Courses
(to be taken in the junior and senior years _ prerequisites from groups B. and C.)

- EST 4502C Metrology and Instrumentation 4 hours
- ETD 3350C Applied CADD 3 hours
- ETG 4530C Strength of Materials 4 hours
- ETG 4950C Senior Design Project AND 3 hours
- ETM 4220 Applied Energy Systems OR 4 hours
- ETM 4232C Applied Heat transfer or 4 hours
- ETM 4331C Applied Fluid Mechanics 4 hours

Design
E. Upper Division Specialty Courses _ select any five courses 15 hours
(to be taken in the junior and senior years _ prerequisites from groups B., C. and D.)

- ETC 4241C Construction Materials and Methods 3 hours
- ETC 4242 Construction Contracts and Specifications 3 hours
- ETC 4414C Applied Structural Design I 3 hours
- ETC 4415C Applied Structural Design II 3 hours
- ETI 3421 Materials and Processes 3 hours
- ETM 4512C Applied Design of Machine Elements 3 hours

Operations
E. Upper Division Specialty Courses _ select any five courses 15 hours
(to be taken in the junior and senior years _ prerequisites from groups B., C. and D.)

- ETI 3421 Materials and Processes 3 hours
- ETI 3960 Technical Sales 3 hours
- ETI 4186 Applied Reliability 3 hours
- ETI 4205 Applied Logistics 3 hours
- ETI 4640 Process Planning and Work Measurement 3 hours
- ETI 4661C Applied Facilities Planning and Design 3 hours
- ETI 4700 Occupational Safety 3 hours

Junior Year
Fall
- MAC 3253/3311 Calculus I (3/4)
- ETG 3541 Mechanics (4)
- ETI 4110 Quality Control (3)
- ETC 4241C Construction Meth (3)
- ETD 3530C Appl CAD (3)

Spring
- MAC 3254/3312 Calculus II (3/4)
- EET 3085C Elect & Electron (4)
- ETC 4242 Contract & Spec (3)
- CET 3123C Micro Proc Elect (3)

Senior Year
Fall
- ETM 4512C App Mech Design (3)
- ETC 2214C App Struct Des I (3)
- EST 4520C Metro I Instr (4)
- ETM 4220 Energy Systems (4)
- ETI 3651C Computer Appl (3)

Spring
- ETC 4414C App Struct Des II (3)
- ETD 4590 Sr Design Proj (3)
- ENC XXXX Tech Report Writ (3)
- ETI 4635 Tech Admin (3)
- ECI 3671 Tech Econ Anal (2)

Operations Engineering Technology

Junior Year
Fall
- MAC 3253/3311 Calculus I (3/4)
- ETG 3541 Mechanics (4)
- ETI 4110 Quality Control (3)
- ETI 4640 Proc Plan & Sch (3)
- ETD 3530C Appl CAD (3)

Spring
- MAC 3254/3312 Calculus II (3/4)
- EET 4530C St of Matrls (4)
- EET 3085C Elect & Electron (4)
- ETI 4186 Appl Reliability (3)
- CET 3123C Micro Proc Elect (3)

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AIR FORCE ROTC (Aerospace Studies)

Chair: L. Glaser, BIO 306, Phone (407) 823-1247
Faculty: Hernandez, Garcia, Mitchell, Morant

The Department of Aerospace Studies provides pre-commissioning education for qualified students who desire to serve as commissioned officers in the active duty Air Force. The department offers both four-year and two-year Air Force ROTC programs. The four/three-year program provides on-campus study during the freshman through senior years. The two year programs allow community college transfer students and other students with two academic years remaining in either undergraduate or graduate status to earn an Air Force commission while completing their studies. Both programs offer scholarship opportunities to selected students. Students are invited to write or visit the Department of Aerospace Studies to obtain additional information.

CURRICULUM

Students enrolled in the Air Force ROTC program may major in any academic discipline and earn a minor in Aerospace Studies. A major is not offered by this department. AFROTC courses are listed under the prefix AFR. The curriculum is divided into two phases:

1. General Military Course (GMC)
   The General Military Course is designed to give students their first exposure to the Reserve Officer Training Corps program during their freshman and sophomore years. The courses deal with the mission, organization, and structure of the U.S. Air Force, and the development of air power into a prime element of American national security.

2. Professional Officer Course (POC)
   The Professional Officer Course is designed to develop and hone managerial and officership skills during a student's junior and senior years. All students who seek a commission through the Air Force ROTC must complete the POC curriculum. The curriculum involves the study of concepts of leadership and management in the Air Force and an analysis of the formulation and implementation of American defense policy.

LEADERSHIP LABORATORY

Leadership Laboratory is a required lab that must be taken in conjunction with the academic class. Leadership Laboratory is only open to students who are members of the Reserve Officer Training Corps or are eligible to pursue a commission as determined by the Professor of Aerospace Studies.

REQUISITE FOR ADMISSION TO THE PROFESSIONAL OFFICER COURSES (POC)

1. Be at least 17 years of age at the time of acceptance.
2. Be able to complete the Professional Officer Course and complete all degree requirements prior to reaching age 26.5 if entering Flight Training, or before age 30 (can be waived to age 35) if entering a non-flying Air Force specialty.
3. Pass the Air Force Officer Qualifying Test.
5. Selection by the Professor of Aerospace Studies and acceptance by the University.
6. Successful completion of a summer Field Training course (either 4 or 6 week).
7. Enlistment in the Air Force Reserve certifying agreement to complete the POC and accept an Air Force Commission. This enlistment is terminated upon receipt of a commission.
MONETARY ALLOWANCE
All students enrolled in the Professional Officer Course receive a tax-free monetary allowance of $150 per month, effective October 1, 1995.

AIR FORCE ROTC SCHOLARSHIP PROGRAM
Scholarships are phased at 4, 3, and 2-year opportunities. This system provides opportunities to those students enrolled in certain academic majors. These scholarships provide for full tuition, and an allowance for fees and textbooks. Scholarship recipients also receive the $150 monthly tax-free monetary allowance. A POC Incentive scholarship is available to eligible cadets enrolled in the last two years of our program regardless of major as long as they graduate prior to becoming 25 years old and maintain a term grade point average of 2.35 or greater.

SUMMER TRAINING
All students must attend a summer Field Training course conducted at several Air Force base. This course includes junior officer training, officer career orientation, and physical conditioning. Students enrolled in the four-year AFROTC program will attend a four-week summer course, normally upon completion of the General Military Course, and they will receive approximately $550. A six-week summer course, which includes a modified version of the General Military Course, is required for students entering the two-year AFROTC program. These students must complete their summer training prior to their formal enrollment in the Professional Officer Corps curriculum. Students who complete the six-week course receive approximately $800.

OFFICER COMMISSIONS
Students who complete the Professional Officer Course are appointed Second Lieutenants in the United States Air Force. After completing the training program and entering active duty with a reserve commission, they will serve a minimum active duty tour which varies in length depending on their particular career area. Such obligations are explained in detail during the one-on-one counseling sessions conducted with each prospect by detachment officers. During their initial period of active service, new officers are given the opportunity to attain career status by obtaining a regular commission in the United States Air Force.

MINOR
The Department of Aerospace Studies offers a minor consisting of a minimum of 16 semester hours. Required courses: AFR 1101, 1111, 2130, 2131, 3220, 3230, 4201, 4210.

MILITARY SCIENCE (ARMY ROTC)
Chair: LTC Edward Earl Hampton, Jr., Trailers 516, 522, 525 (Admin), 526 527
Faculty/Staff: LTC Hampton, CPT Hodges, CPT King, CPT Lamb, MSG Boardman, SFC Rivera, SGT Killian, SGT Coyle, Ms. Martin, Office Manager, Phone (407) 823-2430
The University of Central Florida, in cooperation with the US Army, provides an opportunity to earn a commission as a Second Lieutenant and compete for an active duty assignment or accept a guaranteed Army Reserve or National Guard position. The program offers both a four-year and two-year option for students working on their Associate of Arts, Baccalaureate or Graduate degrees. The two-year option allows students with at least two academic years remaining in either undergraduate or graduate studies to meet all requirements for commissioning. Students may be eligible for the Army's new Simultaneous Membership Program (SMP) which combines Reserve Forces Duty with Army ROTC officer training courses on campus. Students earn about $3700.00 in their last two years.

CURRICULUM:
The Military Science on-campus curriculum is divided into two phases: Basic Military Science Course and Advanced Military Science Course.
1. Basic Military Science
A. The Basic Military Science courses, open to both men and women, are designed for four-year participants and are normally offered during the freshman and sophomore years. These courses address military organizations, equipment, weapons, map reading, land navigation, management skills, grade structure, communications and leadership. There are non contractual obligations or commitments for students in the Basic course phase. The Basic Course phase offers students the opportunity to see what Army ROTC is all about (MIS 1031, 1400, 2120, 2300). Students will also participate in a Field Training Exercise (FTX). These courses fulfill pre-requisite requirements for entering the Advanced Military Science phase.

B. Requisites for admission to the Basic Course:
1) Enrollment in a Baccalaureate or Master’s degree program
2) Full-time student status

2. Advanced Military Science
A. The Advanced Military Science courses, open to both men and women, are normally taken during the junior and senior years. These courses specialize in small unit tactics, how to prepare and conduct military training, military justice system, staff procedures, decision making and leadership. Students who desire a commission as a Second Lieutenant are contracted and paid a tax-free subsistence of $150.00 per month up to 10 months during the school year. Each student is required to take courses that meet the Army’s Professional Military Education Requirements. These requirements include taking at least one course in each of the following areas: Written Communication Skills, Human Behavior, Military history (AMH 3540), Computer Literacy and Math Reasoning (MIS 3301, 3410 4421 and 4430). Students must meet pre-requisite requirements prior to participating in the Advanced program.

B. Requisites for Admission to the Advanced Course:
1) Successful completion of Basic Course, Basic Camp, JROTC, prior military service or permission of the Department Chair.
2) Must be 17 years of age at the time of entry, but not more that 30 years of age at the time of commissioning--30-year age regulation waived for veterans up to age 34.
3) Successful completion of an Army physical examination
4) Agreement to complete the Advanced Course requirements and serve on either Active, Reserve, or National Guard duty as a commissioned officer.
5) Full-time undergraduate student status (minimum of 12 hours); full-time graduate student status (minimum 6 hours).
6) US Citizen

3. Monetary Allowance
All contracted and scholarship students enrolled in the Advanced Military Science Course receive a tax-free monetary allowance of $150.00 per month during the school year.

4. Scholarships
Four, Three and Two-Year scholarships are available for all students who qualify. These scholarships provide full tuition, books and fees for Fall and Spring semesters. In addition, all contracted scholarship students also receive the $150 monetary allowance during the school year. Contact the Enrollment Officer for additional information at (407) 923-5383.

5. Placement Credit
Placement credit is offered to all students with prior service. Prior service experience waives the required Basic Courses. Prior service is extended to include Active duty, Reserve Forces and National Guard. Although prior service does waive the Basic Courses, if a prior service student desires, he/she may elect to enroll in the Basic Courses.

6. Daytona Beach Campus Students
These students should contact the Professor of Military Science at Embry-Riddle Aeronautical University, Daytona Beach, Florida, (904) 239-6469. Students will participate in a Field Training Exercise (FTX) and will commission, if qualified, with Embry-Riddle.
SUMMER TRAINING COURSES

1. Basic Course Summer Training
   A student can earn placement credit for the Basic Course classes and allowed entry into the Advanced Course by attending a six-week course at Fort Knox, Kentucky, thereby allowing completion of all requirements for commissioning within two years. Students attending the summer course receive approximately $700.00 pay. Additionally, all lodging, meals and transportation are furnished. Uniforms will be provided at no expense.

2. Specialized Summer Training Courses
   Qualified students can be selected to attend specialized military training occurring the summer months. These areas of training include: a) Airborne Training; b) Air Assault Training; c) Northern Warfare Training; d) Cadet Troop Leadership Training; e) Master Fitness Training; f) Mountain Training

MILITARY SCIENCE ELECTIVE: Orienteering and Survival Course
   Army ROTC hosts an Orienteering and Survival course open to all students on campus as an elective. This class is offered as a service to the UCF community. For Army ROTC cadets, it does not count towards commissioning credit unless approved by the Professor of Military Science (Chair, Military Science Department).
   For additional information on any aspect of the above program call (407) 823-2430 or 5383.

MINOR: SPACE STUDIES
   Contact Person: E.R. Hosler, ENGR 381, Phone (407) 823-2416

   In response to the needs of the Central Florida space community, UCF offers a multidisciplinary Minor in Space Studies. It is intended for students of all disciplines and includes courses from aerospace engineering, electrical engineering, environmental engineering, instructional programs, physics, physical education, and political science. Program requirements include a grade point average of at least 2.00 and a minimum of 21 credit hours, including three required courses and four elective courses.

   Required courses:
   - AST 2002 Astronomy
   - GEO 4140C Remote Sensing of the Environment
   - PUP 3508 Introduction to Space Studies

   Elective courses:
   - EAS 3010 Fundamentals of Flight
   - EAS 3101 Aerodynamics I
   - EAS 3530 Space Systems
   - EAS 4505 Orbital Mechanics
   - EGN 4830 Telecommunications
   - GEO 1200 Physical Geography
   - GEO 3370 Resources Geography
   - INR 4404 Space Law
   - PET 4351 Applied Exercise and Human Physiology
   - PUP 4510 Space Policy
   - SCE 5825 Space Science for Educators

   Completion of the Minor in Space Studies may involve course work in addition to the minimum requirements of some major programs. Students should consult with their academic advisors to confirm that all of the departmental and college degree requirements for their majors are being met.

   Formal enrollment should occur before nine credit hours have been completed. To obtain information and to enroll in the Minor, students should contact Dr. E. R. Hosler, Associate Chair, Department of Mechanical and Aerospace Engineering, Engr 381, (407) 823-2416.
COLLEGE OF HEALTH AND PUBLIC AFFAIRS

UNDERGRADUATE PROGRAMS
Cardiopulmonary Sciences (BS)
Communicative Disorders (BA/BS)
Criminal Justice (BS)
Health Information Management (BS)
Health Services Administration (BS)
Legal Studies (BA)
Medical Laboratory Sciences (BS)
Molecular Biology and Microbiology (BS)
Nursing (BSN)
Physical Therapy (BS)
Public Administration (BA)
Radiologic Sciences (BS)
Social Work (BSW)

PRE-HEALTH PROFESSIONAL PROGRAMS
Prechiropractic
Predental
Premedical
Preoptometry
Prepharmacy
Prepodiatry
Preveterinary

GRADUATE PROGRAMS*
Communicative Disorders (MA)
Criminal Justice (MS)
Health Sciences (MS)
Molecular Biology and Microbiology (MS)
Nursing (MSN)
Public Administration (MPA)
Social Work (MSW)

OTHER PROGRAMS
Gerontology Certification Program

*See the Graduate Catalog.

Recent legislation has mandated changes in program admission prerequisites, program length, and course levels. This document may not include the final versions of these changes. See your college advisor for current information.
COLLEGE OF
HEALTH AND PUBLIC AFFAIRS

Dean: Belinda R. McCarthy, HPB 207, Phone (407) 823-6424
Associate Dean: Michael J. Sweeney, HPB 214, Phone (407) 823-0030
Assistant Dean: Joyce E. Domer, HPB 214, Phone (407) 823-0205

The College of Health and Public Affairs is composed of two schools and five departments. The two schools are Nursing and Social Work. The health related disciplines include: Communicative Disorders, Health Professions and Physical Therapy, Nursing and Molecular Biology and Microbiology. The Criminal Justice/Legal Studies, Public Administration and Social Work programs comprise the public affairs unit of the college.

The college provides education for professionals in health, human and public service. As an integral part of the Central Florida community, its mission includes the advancement of knowledge, education, public policy and professional practice in health and public affairs.

OFFICE OF STUDENT SUPPORT

Director: Judy Sindlinger, HPB 201, Phone (407) 823-0010
Advisement Coordinator: Debbie Phillips, HPB 201, Phone (407) 823-0010

The College of Health and Public Affairs Office of Student Support assists students in understanding matters relating to college and university requirements and procedures as well as coordinating orientation, registration and graduation certification. Students interested in pursuing limited access programs are encouraged to meet with advisors in the college to stay on track by taking the appropriate prerequisite requirements. Advisors are available through our Outreach Program for students on probation or for those who are having academic difficulty. Faculty advisors are assigned to students upon admission to their degree program in their academic department. Questions concerning university and college academic policies should be directed through this office. Pre-health Professions Advisement for students interested in pursuing professional degrees is handled in the Pre-Health Professions Advisement Office located in HPB 350.

General Requirements for the Bachelors Degree

Some Schools, Departments or Programs in the College are upper-division, limited access programs. Acceptance by or registration at the University does not constitute admission to the following: Schools of Nursing and Social Work, Department of Health Professions and Physical Therapy, and the Programs in Cardiopulmonary Sciences, Medical Laboratory Sciences, Health Information Management, and Radiologic Sciences. Application must be made to the appropriate program in health sciences. For nursing or physical therapy, contact the department, for Social Work, contact the School of Social Work. Additional information regarding prerequisites and grade point averages may be obtained from the desired School, Program or Department.

The following Departments and Programs do not have limited access: Departments of Communicative Disorders, Criminal Justice/Legal Studies, Molecular Biology/Microbiology, and Public Administration; and the Program in Health Service Administration.

DEPARTMENT OF COMMUNICATIVE DISORDERS

Interim Chair: T. A. Mullin, Research Pavilion Suite 210, Phone (407) 249-4798
Faculty: Bruten, Hedrick, Ingram, Mullin, Parker, Ratusnik, Rivers, Rosa-Lugo, Ryalls, Utt, Vanryckeghem

The primary goal of the Department of Communicative Disorders is the preparation of clinical specialists in Speech/Language Pathology and Audiology. Undergraduate offerings are consistent with philosophies of the American Speech-Language-Hearing Association in that most coursework is designed to provide the student theoretical foundations on which to build competent clinical skills. An on-campus clinic as well as external affiliations including area public schools, community speech and hearing centers, hospital clinics, physicians' offices and industrial settings are available for the development of various clinical competencies. Faculty are engaged in generation and transmission of knowledge concerning speech
language-hearing processes and impairments via ongoing research projects. The professional phase of the program in speech/language pathology and audiology is accredited by the Educational Standards Board of the American Speech-Language Hearing Association.

In addition to coursework for majors, the Department offers a 3-course sequence in Sign Language: SPA 4380, SPA 4381, SPA 4382.

MINOR

The Department of Communicative Disorders offers a minor consisting of a minimum of 25 semester hours.

Required courses: LIN 4710, 4710L; SPA 3002, 3101, 3112, 3112L, 4032, 4251, 4251L, 4402, and 4402L.

Licensed Speech Language and Audiology Assistant:

This new state license may be obtained by completing our minor plus one additional course as recommended by the academic advisor.

Bachelor of Arts or Bachelor of Science:

Communicative Disorders

Degree Requirements

1. See Undergraduate Degree Requirements
2. See special college and/or department requirements
3. Required Courses

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<thead>
<tr>
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<td>LIN 4710</td>
<td>Foundations of Language</td>
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<td>LIN 4710L</td>
<td>Foundations of Language Lab</td>
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<td>SPA 3002</td>
<td>Introduction to Communicative Disorders</td>
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<td>SPA 3050</td>
<td>Clinical Observation &amp; Practice</td>
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<td>SPA 3101</td>
<td>Phys Bases of Speech and Hearing</td>
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<td>SPA 3112</td>
<td>Basic Phonetics</td>
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<td>SPA 3112L</td>
<td>Basic Phonetics Lab</td>
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<td>SPA 3550</td>
<td>Clinical Methods</td>
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<tr>
<td>SPA 3550L</td>
<td>Clinical Methods Lab</td>
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<tr>
<td>SPA 4011</td>
<td>Speech and Hearing Science</td>
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<tr>
<td>SPA 4032</td>
<td>Audiology I</td>
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<td>SPA 4130</td>
<td>Augmentative Communication Systems</td>
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<td>SPA 4201</td>
<td>Communicative Disorders-Articulation</td>
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<td>Organic Speech Disorders Lab</td>
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<td>SPA 4310</td>
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<td>SPA 4321</td>
<td>Aural Habilitation-Rehabilitation</td>
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<td>SPA 4402</td>
<td>Communicative Disorders-Language</td>
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<td>SPA 4402L</td>
<td>Communicative Disorders-Language Lab</td>
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</tr>
<tr>
<td>SPA 4556</td>
<td>Therapeutic Communications</td>
<td>3</td>
</tr>
</tbody>
</table>

4. Statistics Requirement

STA 3023   Statistical Methods     3 hours
STA 4163   Statistical Methods II 3 hours

5. Restricted Elective

A course at the 3000 or 4000 level related to the Major (e.g., education, psychology, sociology, computer, etc.) selected in consultation with the academic advisor.

6. Other Electives

Students who wish to obtain a Teacher's Certificate for the State of Florida may include the necessary course work as electives. See your academic advisor.

7. B.A./B.S. Option

Students pursuing the B.A. degree must demonstrate proficiency in a foreign language equivalent to one year while students pursuing the B.S. degree must complete six credit hours of health science courses approved by the Department.
8. Students must achieve a grade of "C" in required courses in the Department.

DEPARTMENT OF CRIMINAL JUSTICE AND LEGAL STUDIES
Chair: B.J. McCarthy, PH 116, Phone (407) 823-2603
Faculty: Bast, Becker, Bishop, Bohm, Cook, Fabianic, Griset, Hall, Hanson, Lanier, Lucken, Mahan, B.J. McCarthy, B.R. McCarthy, Pyle, Sanborn, Scott, Slaughter, Surette

The Department of Criminal Justice and Legal Studies includes two undergraduate degree programs: Legal Studies and Criminal Justice.

Criminal Justice Program
Criminal Justice is a problem based field of study which focuses on the nature of crime and crime control agencies in a democratic society. The curriculum reflects the dynamic nature of the field and prepares students for challenging careers in public service.

Criminal Justice Minor
The Criminal Justice Minor consists of 18 or more semester hours. Required Courses: CCJ 3020, CCJ 3010; two of the following: CCJ 3300, CCJ 3290, CCJ 4105; plus a minimum of 6 semester hours of criminal justice courses selected with the aid of an advisor.

Legal Studies Program
The Legal Studies Program provides students with a broad understanding of basic principles of law and the role and function of the legal system. Two emphases are provided: legal-applied and legal-general. The applied emphasis prepares students for professional positions in law offices, public agencies, and business organizations. The general law emphasis program is designed to provide a general background in American society as well as American law. This emphasis, in addition to preparing students for law-related careers, provides a foundation for further professional or graduate education. Satisfactory completion of program requirements in either emphasis leads to the degree of Bachelor of Arts with a major in Legal Studies.

Legal Studies Minor
The Legal Studies Minor consists of 18 or more semester hours. Required courses: PLA 3013 plus a minimum of 12 semester hours of legal studies courses and 3 semester hours of law-related courses selected with the aid of an advisor.

Bachelor of Science: Criminal Justice

Degree Requirements
1. See Undergraduate Degree Requirements
2. See special college and/or department requirements
3. Required Courses (18 semester hours)
   - CCJ 3020 Criminal Justice System 3 hours
   - CCJ 3010 Crime in America 3 hours
   - CCJ 3290 Prosecution and Adjudication 3 hours
   - CCJ 3300 Corrections and Penology 3 hours
   - CCJ 4105 Police and Society 3 hours
   - CCJ 4701 Research Methods in Criminal Justice 3 hours
4. Restricted Electives
   a. 21 additional semester hours of upper division CCJ coursework. Seniors can satisfy up to 9 hours of this requirement with internship and up to 6 hours with directed independent study; however, the combination of these non-class options shall not exceed 12 hours. Program standards must be met to be eligible for either internships or independent study credit.
   b. 15 additional semester hours of supporting courses to be selected with and approved by the student's advisor. These courses may vary from student to student depending upon individual needs or objectives, but include selected courses from public administration, legal studies, sociology, statistics, and psychology.
5. Students must take a minimum of 30 hours from the department to obtain the UCF degree in Criminal Justice.

Total Semester Hours Required 120
Bachelor of Arts: Legal Studies

Degree Requirements

1. See Undergraduate Degree Requirements
2. See special college and/or department requirements
3. Required Courses (18 semester hours)
   - PLA 3013 Law and the Legal System 3 hours
   - PLA 3105 Legal Research 3 hours
   - PLA 3155 Legal Writing 3 hours
   - PLA 3203 Civil Practice and Procedure 3 hours
   - PLA 3504 Property and Real Estate Law 3 hours

4. Restricted Electives
   a. 18 additional hours of Legal Studies coursework. (see applied and general emphases below)
   b. 12 semester hours of supporting courses chosen with the approval of the student's advisor. These courses may be selected from any department or program so long as they are relevant to legal studies.

5. Students must take a minimum of 30 hours of the 45 hours of program requirements at UCF; and 27 hours of PLA courses must be taken at UCF.

Total Semester Hours Required 120

Applied Emphasis

Students are strongly urged to take the following courses as restricted electives:
- PLA 3273 The Law of Torts
- PLA 4408 The Law of Contracts
- PLA 4433 Florida Partnerships and Corporations
- PLA 4603 Estates and Trusts
- PLA 4941 Internship

General Emphasis

Students are strongly urged to select their restricted electives from the following list:
- PLA 3273 The Law of Torts
- PLA 3308 Criminal Procedure
- PLA 4020 Law and Society
- PLA 4408 The Law of Contracts
- PLA 4483 Administrative Law
- PLA 4700 Professional Ethics and Liability
- PLA 5937 Seminar in Contemporary Legal Problems

Supporting courses in the general emphasis are to be selected in consultation with the student's advisor but may include courses selected from the following areas: Political Science, Criminal Justice, Sociology, Psychology, History, Public Administration, and Philosophy.

DEPARTMENT OF HEALTH PROFESSIONS AND PHYSICAL THERAPY

Chair: G. H. Frazer, (407) 823-2972
Faculty: Acieno, Barr, Douglass, Edwards, Frazer, Freeman, Janos, Ludy, Lytle, Mendenhall, Valentine, Welker, Worrell

The Department of Health Professions and Physical Therapy offers a diversity of baccalaureate programs which prepare students for professions in the fields of Cardiopulmonary Sciences, Respiratory Therapy, Health Information Management, Health Services Administration, Physical Therapy and Radiologic Sciences.

The mission of the Department is to provide quality undergraduate and graduate academic and clinical instruction with an accent on educating future leaders of the health care system. The Department seeks first to strengthen existing programs, as well as to identify and develop new programs which fulfill documented need for health care resources and technology. Another goal is to foster the development of knowledge through research, publications,
scientific presentations, and grantsmanship. Finally, the Department seeks to provide continuing education for the health care community and consumer health education.

The programs in Cardiopulmonary Sciences, Health Information Management and Radiologic Sciences require a minimum overall GPA of 2.5 for admission and the Physical Therapy program requires a minimum overall GPA of 3.0. In addition, a minimum grade of "C" is required for prerequisite courses and required courses within the major. No CLEP, TSD, or AP credit may be used for prerequisite courses.

The primary goal of the program in Health Services Administration is to prepare managers to direct a variety of health care organizations such as hospitals, HMO's, clinics and any other organization involved in the delivery or management of health care services. The undergraduate curriculum is consistent with the curricular requirements of the Association of University Programs of Health Administration, stressing administration, policy and planning skills. A diverse health care community offers students a variety of internship experiences as well as providing placement opportunities upon graduation. Faculty are actively engaged in research relating to occupational stress, outcome assessment and alternative delivery mechanisms.

Program in Cardiopulmonary Sciences
Director: L.T. Worrell, HPB 350, Phone (407) 823-2214

The major in Cardiopulmonary Sciences (which includes the Respiratory Care Program) leads to the Bachelor of Science Degree. In the professional curriculum, students study advanced courses in respiratory therapy, pharmacology, life support systems, disease assessment, clinical practice, diagnostics, and patient management. Upon completion of the undergraduate program, the baccalaureate individual will possess basic and advanced level skills and should be prepared to assume future leadership roles within the profession. Graduates will be prepared to become Registered Respiratory Therapists through licensure by the State of Florida.

The Cardiopulmonary Sciences program is accredited by the Joint Review Committee for Respiratory Therapy Education in conjunction with CAAHEP of the American Medical Association.

The Cardiopulmonary Sciences program is a limited access program requiring a SEPARATE APPLICATION. Acceptance to the university does not necessarily constitute admission to the upper division professional program. A separate application must be made directly to the program prior to February 1 of the year admission is sought. Students admitted with an AS degree will need to complete UCF's General Education and Foreign Language Admission requirements. A 2.5 overall GPA is required for admission to and graduation from the program. Students must show evidence of completion of a Basic Life Support Certification (CPR) program prior to admission to the program.

Bachelor of Science: Cardiopulmonary Sciences

Degree Requirements*
1. See Undergraduate Degree Requirements
2. UCF Residency Requirement: 34 hours
3. See special college and/or department requirements
4. Prerequisites
   MAC 1104 College Algebra 3 hours
   STA 3023 Statistics or higher level math 3 hours
   BSC 2010C General Biology or higher level (with lab) 4 hours
   MCB 3013C Microbiology or higher level (with lab) 5 hours
   ZOO 3733C Human Anatomy or higher level (with lab) 4 hours
   PCB 3703C Human Physiology or higher level (with lab) 4 hours
   CHM 1032L Chemistry for Hlth Sci or higher level (with lab) 4 hours
   PHY 3053C College Physics or higher lab (with lab) 4 hours
5. Professional Curriculum

Fall Semester Junior Year
- RET 3026C Intro. to Respiratory Care 4 hours
- RET 3484C Cardiopulmonary Physiology 4 hours
- HSC 4550 Pathophysioligic Mechanisms 3 hours
- APB 4651 Medical Pharmacology I 2 hours
- HUN 3011 Human Nutrition 3 hours
- Total: 16 hours

Spring Semester Junior Year
- RET 4503 Chest Medicine 3 hours
- RET 4244 Life Support Systems 3 hours
- RET 3264C Mechanical Ventilation 3 hours
- APB 4652 Medical Pharmacology II 2 hours
- HSA 4700 Research in Health Prof. 3 hours
- Total: 14 hours

Summer Semester Junior Year
- RET 4414C Pulmonary Function Studies 4 hours
- RET 3714 Pediatric Respiratory Care 3 hours
- RET 3874 Clinical Practice I 5 hours
- Total: 12 hours

Fall Semester Senior Year
- RET 4284 Cardiopulmonary Diagnostics I 3 hours
- RET 4715 Neonatal Medicine 3 hours
- RET 4034 Problems in Patient Management 3 hours
- RET 3875 Clinical Practice II 8 hours
- Total: 17 hours

Spring Semester Senior Year
- RET 4285 Cardiopulmonary Diagnostics II 3 hours
- RET 4934 Selected Topics in Respiratory Care 2 hours
- HSC 4008 Professional Development 3 hours
- RET 4876 Clinical Practice III 8 hours
- Total: 16 hours

Total Semester Credit Hours Required 128

Registered Respiratory Therapist / RRT Transfer-
Credit by Examination is available for Registered Respiratory Therapists for 26 credits of course work. Credit will be awarded by the Cardiopulmonary Sciences faculty when students demonstrate advanced knowledge and competencies beyond the level required for entry into the profession. This knowledge may be demonstrated by successful completion of the two part registry examination given by the National Board for Respiratory Care (NBRC). Only graduates of an accredited institution and program are eligible for the NBRC credentialling process. Students who successfully complete these requirements will have validated the knowledge and clinical competencies and will be awarded credit in their final semester with grades of "S" recorded in their transcripts.

*The curriculum for the Cardiopulmonary Sciences program is currently under revision. Please contact the Department of Health Professions and Physical Therapy in the Fall of 1996 for the revised curriculum.

Program in Health Information Management

Director: C. Barr, HP 220, Phone (407) 823-2359

Health Information Managers are professional members of the modern health care team responsible for: (1) the acquisition and supervision of complete medical records on each patient; (2) the design and management of health information systems which collect, process, store, retrieve, and release health information and statistics; (3) assistance to administration, other health professionals, and medical staff in developing quality assurance programs by
abstraction of medical data, preparation of statistical reports, and analysis of information, and
(4) assistance in collection and analysis of data for public health services planning.

The curriculum of the Health Information Management program is approved by the
Commission on Accreditation of Allied Health Education Programs (CAAHEP) in collaboration
with the Council on Accreditation of the American Health Information Management Association.

Application and acceptance to the University does not constitute admission to the program.
SEPARATE APPLICATION must be made directly to the upper-division, limited access HIM
program prior to February 1st of the year in which admission is sought. A personal interview is
also required. A minimum overall GPA of 2.50 and a minimum grade of "C" in prerequisite and
major courses is required for admission to, continuation in and graduation from the Health
Information Management Program.

Upon completion of the approved program, the student is eligible to submit an application for
writing the national registration examination administered by the American Health Information
Management Association to qualify as a Registered Record Administrator.

Bachelor of Science: Health Information Management

Degree Requirements*

1. See Undergraduate Degree Requirements
2. UCF Residency Requirement: 35 hours
3. See special college and/or department requirements
4. Prerequisites
   ZOO 3733C  Human Anatomy  4 hours
   PCB 3703C  Human Physiology  4 hours
   STA 2014  Statistics  3 hours
   CGS 3000  Computer Science for Business  3 hours
   HSC 3531  Medical Terminology  3 hours
   ACG 2021  Principles of Financial Accounting  3 hours
   ACG 2071  Principles of Managerial Accounting  3 hours
5. Required Courses
   APB 3600  Introduction to Pharmacology  3 hours
   COM 3110  Business and Professional Communication  3 hours
   HSA 3170  Health Care Finance  3 hours
   HSA 4193  Health Care Automation  3 hours
   HSA 4700  Introduction to Research  3 hours
   HSC 3640  Health Law  3 hours
   HSC 4550  Pathophysiologic Mechanisms  3 hours
   MAN 3025  Management of Organizations  3 hours
   MRE 3000  Introduction to Health Information Management  4 hours
   MRE 3110  Health Record Organization & Management  5 hours
   MRE 3900  Directed Practice I  2 hours
   MRE 3910  Directed Practice II  2 hours
   MRE 4202  Coding Procedures I  5 hours
   MRE 4203  Coding Procedures II  3 hours
   MRE 4304  Health Information Department Management  3 hours
   MRE 4312  Analysis of Medical Record Dept Operations  4 hours
   MRE 4500  Quality Assessment  4 hours
   MRE 4830  Directed Practice III  2 hours
   MRE 4832  Directed Practice IV  2 hours
   MRE 4835  Management Affiliation  5 hours
   MRE 4218  Health Information Management Systems  3 hours

*The curriculum for the Health Information Management program is currently under
revision. Please contact the Department of Health Professions and Physical Therapy
in the Fall of 1996 for the revised curriculum.
Program in Health Services Administration

Director: S. Lytle, HPB 125, (407) 823-2359

The Program offers a baccalaureate degree in Health Services Administration. The baccalaureate degree is designed for graduates of associate of science degree programs in nursing or allied health who desire to study health services administration. People within the health care industry with associate of science degrees in areas such as nursing, respiratory therapy, radiologic technologies, medical laboratory technology, dental hygiene, and others may find this program providing a migration path from the clinical side of the health care industry to the business or leadership side. Students without a background in the health care industry can also be accommodated to build a background in health services administration.

Degree Requirements*

1. See Undergraduate Degree Requirements
2. UCF Residency Requirements: 31 hours
3. Prerequisite Courses:
   - ECO 2023 Principles of Economics II 3 hours
   - ACG 2021 Principles of Financial Accounting 3 hours
   - ACG 2071 Prin. of Managerial Accounting 3 hours
   - CGS 3000 Computer Applications for Business 3 hours
4. Required Courses
   - ECO 2013 Principles of Economics I 3 hours
   - STA 3023 Statistical Methods 3 hours
   - MAN 3025 Management of Organizations 3 hours
   - MAR 3023 Marketing 3 hours
   - HSA 3122 U.S. Health Care Systems 3 hours
   - HSC 4500 Epidemiology 3 hours
   - HSC 4564 Health Care Needs of the Elderly 3 hours
   - HSC 3531 Medical Terminology 3 hours
   - HSC 4651 Health Care Ethics 3 hours
   - HSC 3640 Health Law 3 hours
   - HSA 4180 Org and Management of Health Agencies 3 hours
   - HSA 4193 Health Care Automation 3 hours
   - HSA 3170 Health Care Finance 3 hours
   - HSA 4700 Health Science Research Methods 3 hours
   - HSA 4120 Community Health Services 3 hours

The above required courses must be completed with a grade of "C" or higher.

5. Electives:
   - Students with an associate of science degree in a health care clinical discipline may receive up to 30 hours of directed field experience. Students will be evaluated by their academic advisor.
   - Generic students without the associate of science degree should select elective hours with their advisor. Students are encouraged to work on courses that will enhance their background in the health care industry. These may be used to build minors offered by the University. Examples include: Business, Computer Sciences, Information Systems, and Public Administration. Courses leading to a Certificate in Gerontology are appropriate.
   - Electives in advanced scientific, clinical or quantitative subjects are also advisable.

6. Total Semester Hours Required: 120

*The curriculum for the Health Services Administration program is currently under revision. Please contact the Department of Health Professions and Physical Therapy in the Fall of 1996 for the revised curriculum

MINOR

The Program in Health Services Administration offers a minor consisting of a minimum of 18 semester hours. To receive a minor, the student must complete the course work and maintain at least a 2.5 GPA and a minimum of "C" on all courses required for the Health Services Administration Minor.
Program In Physical Therapy

Interim Director: R. Freeman, TR 544, Phone (407) 823-3470

The physical therapy program at the University of Central Florida is an accredited entry-level curriculum leading to a Bachelor of Science in Physical Therapy degree. It is a limited access upper degree program requiring separate application. Graduates will be eligible to take the state licensure examination in any state in the United States, or comparable examination in foreign countries with practice acts regulating the practice of health professionals. Graduates of entry-level programs are prepared to practice in an ethical, legal, safe, caring and effective manner in a variety of acute, community, rehabilitative or private health care settings, providing both physical and psychosocial intervention. Graduates are able to screen individuals to determine the need for physical therapy treatment or for referral to other health professionals. They can design and manage a comprehensive physical therapy plan of care that includes a comprehensive treatment plan, appropriate delegation to and supervision of other support personnel, accurate and thorough documentation of the delivery, and quantified results of, the plan of care, and participation in discharge planning and follow-up care. Graduates are also prepared to pursue graduate studies, and/or specialty training and certification in all recognized physical therapy specialties.

The entry-level professional curriculum is a full-time program. It is six consecutive semesters in length, including clinical practicums and internships ranging from one week to four months long. A new entering class begins the program in May of each year. Acceptance to the University, however, does not constitute admission to this upper-division, limited access program. SEPARATE APPLICATION must be completed for the Department of Physical Therapy at UCF by January 3 of the year in which admission is sought.

Admission Requirements

A. UCF Students:
1. Completion of all GEP requirements.
2. UCF Residency Requirement: 35 hours
3. Satisfaction of CLAST requirement
4. Completion of, with no grade lower than "C", all courses used to satisfy Prerequisite Requirement (see Section D, below).

B. Transfer Students:
1. A.A. degree from a state supported community college or State University System of Florida institution, or bachelor’s degree from any accredited senior college in the United States or Canada, or completion of courses to satisfy the UCF general education requirements.
2. Completion at an accredited institution in the United States or Canada, and with no grade lower than "C", all courses used to satisfy Prerequisite Requirement (see Section D, below).
3. Application to UCF completed and returned by November 15.

C. All Students:
1. Overall GPA of at least 3.0, and a minimum GPA of 3.0 in prerequisite courses with a minimum grade of "C" in all courses used to satisfy the Prerequisite Requirement (see Section D, below).
2. Courses strongly recommended but not required:
   Critical Thinking, Calculus, Biochemistry, CPR certification, medical terminology, additional biology courses, additional psychology courses.
   Any courses not selected in Section D
3. A minimum of 200 documented clock hours experience working, volunteering or shadowing in a physical therapy facility with a licensed physical therapist by the application deadline.
4. Demonstrated interpersonal abilities and potential for leadership.
5. Competence in the use of a personal computer.
6. Submission of a completed Physical Therapy Application for Admission by the January 3 deadline.

Required Courses: HSA 3170, HSA 4180, HSC 4500, HSA 3122, HSA 4193, and HSC 3531.
Completion of all Prerequisite Requirements by the January 3 application deadline (see Section D, below).

D. Prerequisite Requirement:

1. Behavioral Sciences (a minimum of one course in each category):
   a. General Psychology
   b. Developmental Psychology

2. Natural Sciences and Mathematics (eight courses)
   a. Biology - General Biology, Human Anatomy, and Human or Mammalian Physiology courses, with labs, (three courses).
   b. Chemistry - for science majors with labs (two courses).
   c. Statistics for science majors.
   d. Physics - College Physics (algebra based), or University Physics (calculus based), with labs (two courses)

Bachelor of Science: Physical Therapy

Degree Requirements*

1. See Undergraduate Degree Requirements.

2. Departmental Requirements: to be eligible for a baccalaureate degree in physical therapy, a student must complete all academic and clinical education courses prescribed in the professional curriculum, as shown in Section 4 below, with no grade less than "C", and be recommended for the degree by the academic and clinical faculty.

3. Preprofessional Curriculum: 64 hours
   A. Prerequisite Requirements (The following is an example of a selection (37 hours) of courses that may be used to satisfy the Prerequisite Requirement)

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<th>Hours</th>
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<td>DEP 3004</td>
<td>Developmental Psychology</td>
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<tr>
<td>BSC 2010C</td>
<td>General Biology I</td>
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<tr>
<td>BSC 2011C</td>
<td>General Biology II</td>
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</tr>
<tr>
<td>ZOO 3733C</td>
<td>Human Anatomy</td>
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<tr>
<td>PCB 3703C</td>
<td>Human Physiology</td>
<td>4</td>
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<tr>
<td>CHM 2045</td>
<td>Chemistry Fundamentals I</td>
<td>4</td>
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<td>CHM 2046</td>
<td>Chemistry Fundamentals II</td>
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<td>STA 3023</td>
<td>Statistical Methods I</td>
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<tr>
<td>PHY 3053C</td>
<td>College Physics I</td>
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<tr>
<td>PHY 3054C</td>
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</table>

   B. Remaining General Education Program (27 hours)

4. Professional Curriculum: (80 hours)
   A. First Professional Year (39 hours)

<table>
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<tr>
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<tbody>
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<td>Introduction to Caring for Patients</td>
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<tr>
<td>PHT 3930</td>
<td>Foundations of Physical Therapy I</td>
<td>2</td>
</tr>
<tr>
<td>PHT 3930</td>
<td>Patient Practitioner Interaction I</td>
<td>1</td>
</tr>
<tr>
<td>PHT 3930</td>
<td>Patient Practitioner Interaction II</td>
<td>1</td>
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<tr>
<td>PHT 3930</td>
<td>Gross Anatomy/Neuroscience I</td>
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</tr>
<tr>
<td>PHT 3930</td>
<td>Gross Anatomy/Neuroscience II</td>
<td>5</td>
</tr>
<tr>
<td>PHT 3930</td>
<td>Clinical Kinesiology</td>
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</tr>
<tr>
<td>PHT 3930</td>
<td>Theory and Procedures of Physical Therapy I</td>
<td>2</td>
</tr>
<tr>
<td>PHT 3930</td>
<td>Therapeutic Exercise I</td>
<td>2</td>
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<tr>
<td>PHT 3930</td>
<td>Clinical Education I</td>
<td>1</td>
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<tr>
<td>PHT 3930</td>
<td>Therapeutic Exercise II</td>
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<td>PHT 3930</td>
<td>Theory and Procedures of Physical Therapy II</td>
<td>2</td>
</tr>
<tr>
<td>PHT 3930</td>
<td>Medical Science and Pharmacology I</td>
<td>2</td>
</tr>
<tr>
<td>PHT 3930</td>
<td>Introduction to Clinical Research</td>
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<tr>
<td>PHT 3930</td>
<td>Physiology of Therapeutic Exercise</td>
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<tr>
<td>PHT 3930</td>
<td>Physical Assessment I</td>
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   B. Second Professional Year (41 hours)

<table>
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<tr>
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<td>PHT 4832</td>
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<td>PHT 4932</td>
<td>Clinical Education II</td>
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<tr>
<td>PHT 4932</td>
<td>Therapeutic Exercise III</td>
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PHT 4932 Pedontology (Pediatric) 3 hours
PHT 4932 Medical Science and Pharmacology II 2 hours
CLP 4402C Psychological Aspects of Disability 3 hours
PHT 4932 Therapeutic Exercise IV 2 hours
PHT 4932 Orthopedic Problems in Physical Therapy 4 hours
PHT 4932 Neurological Problems in Physical Therapy 2 hours
PHT 4932 Clinical Research Problems I 2 hours
PHT 4932 Clinical Education III 2 hours
PHT 4932 Teaching and Learning in Physical Therapy 2 hours
PHT 4932 Cardiopulmonary Problems in Physical Therapy 2 hours
PHT 4932 Gerontology in Physical Therapy Practice 2 hours
PHT 4932 Management of Physical Therapy Services 2 hours
PHT 4932 Clinical Research Problems II 2 hours
PHT 4932 Clinical Internship I 2 hours
PHT 4932 Clinical Internship II 3 hours

Total Semester Hours Required for Degree 135

* The curriculum for the Physical Therapy program is currently under revision. Please contact the Department of Health Professions and Physical Therapy in the Fall of 1996 for the revised curriculum.

Program in Radiologic Sciences

Director: T. J. Edwards III, HPB 104, Phone (407) 823-2747

The University of Central Florida offers the only accredited Bachelor of Science in Radiologic Sciences degree program in Florida. The Radiologic Sciences Program offers students the opportunity to specialize in either Radiography or Radiation Therapy. Radiographers and Radiation Therapists are integral members of the health care team dedicated to providing high quality patient care. Graduates are prepared to function as clinically competent Radiographers or Radiation Therapists and, with experience, advance to leadership positions in their profession.

The primary role of Radiographers is to perform medical imaging procedures for the diagnosis of disease and injury. The Radiographer enjoys an interesting and challenging variety of examinations/procedures which may include conventional radiography, fluoroscopy, vascular imaging, computed tomography and magnetic resonance imaging. Employment opportunities are available in hospitals, imaging centers, and private physician offices. Career advancement opportunities include positions in administration, education, quality assurance, and public health physics.

Radiation Therapists work closely with physicians to deliver high energy radiation for the treatment of cancer. The Radiation Therapist delivers the prescribed amount of radiation to the precise tumor site while assessing and reporting patient progress throughout the course of treatment. Employment opportunities are available in hospitals and treatment centers. Career advancement opportunities include positions in radiology administration, education, quality assurance, and dosimetry.

The program works in conjunction with Central Florida Regional Hospital, Sanford; Jewett Orthopedic Clinic, Winter Park; Halifax Medical Center, Daytona Beach; South Seminole Community Hospital, Longwood; and Winter Park Memorial Hospital, Winter Park.

The programs in Radiography and Radiation Therapy Technology are accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT). Graduates are eligible to apply for admission to the certification exam administered by the American Registry of Radiologic Technologists (ARRT). The University of Central Florida is the sponsoring institution for the Radiography program. Halifax Hospital Medical Center is the sponsoring institution of the Radiation Therapy program.

Acceptance to the University does not constitute admission to this upper-division, limited access program. SEPARATE APPLICATION must be made to the department. The application deadline for the is February 1 of the year in which admission is sought. In addition to a formal interview, admission criteria include completion of the General Education Program, Foreign Language admissions proficiency, completion of the CLAST, and prerequisite course requirements and admission to the University as an upper-division student.
A minimum overall GPA of 2.50 and a minimum grade of "C" in prerequisite and major courses is required for admission to, continuation in, and graduation from the Radiologic Sciences Program.

Credit by Examination
Credit by Exam for clinical education courses will be awarded to Registered Technologists who demonstrate advanced knowledge and competencies beyond the level required for entry into the profession. The knowledge required to perform advanced competencies may be demonstrated by registration in multiple disciplines, registration in an advanced level of certification or completion of the Advanced Clinical Practicum course. Students who successfully complete the requirements for credit by exam will be awarded a grade of "S" for the clinical education courses required in their program of study.
Credit by exam for didactic courses will be awarded according to the process described in the UCF catalog.

Bachelor of Science: Radiologic Sciences

Degree Requirements*
1. See Undergraduate Degree Requirements
2. UCF Residency Requirements: Radiography Program - 33 hours
Radiation Therapy Program - 34 hours
3. See special college and/or department requirements
4. Required courses
   Prerequisites
   **CGS 1060 Introduction to Computer Science 3 hours
   **PCB 3703C Human Physiology 4 hours
   **PHY 3053C College Physics I 4 hours
   PHY 3054C College Physics II 4 hours
   ZOO 3733 Human Anatomy 4 hours
   MAC1104 College Algebra 3 hours

**Students are advised to include CGS 1060 and PHY 3053C in their General Education Program.

Professional Phase
Radiography Program of Study

JUNIOR LEVEL
RTE 3000 Introduction to Radiologic Sciences 3 hours
RTE 3111C Introduction to Patient Care 2 hours
RTE 3503C Radiographic Procedures I 3 hours
RTE 3418C Principles of Radiographic Exposure I 3 hours
RTE 3804 Clinical Education I 4 hours
RTE 3513C Radiographic Procedures II 3 hours
RTE 3457C Principles of Radiographic Exposure II 3 hours
RTE 3684 Physics of Image Production 2 hours
HSC 3640 Health Law 3 hours
RTE 3367 Medical Physics 3 hours
STA 3023 Statistical Methods I 3 hours
HSC 4550 Pathophysiological Mechanisms 3 hours

SENIOR LEVEL
RTE 4563 Special Radiographic Procedures 2 hours
RTE 4782 Pathophysiology 2 hours
RTE 4614L Clinical Education II 5 hours
RTE 4824L Clinical Education III 6 hours
RTE 4573 Advanced Imaging Modalities 3 hours
RTE 4834 Clinical Education IV 4 hours
RTE 4385 Radiobiology 1 hour
Radiation Therapy Program of Study

**JUNIOR LEVEL**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>RTE 3000</td>
<td>Introduction to Radiologic Sciences</td>
<td>3 hours</td>
</tr>
<tr>
<td>RTE 3111C</td>
<td>Introduction to Patient Care</td>
<td>2 hours</td>
</tr>
<tr>
<td>RTE 3503C</td>
<td>Radiographic Procedures I</td>
<td>3 hours</td>
</tr>
<tr>
<td>RTE 3418C</td>
<td>Principles of Radiographic Exposure I</td>
<td>3 hours</td>
</tr>
<tr>
<td>RTE 3804</td>
<td>Clinical Education I</td>
<td>4 hours</td>
</tr>
<tr>
<td>RTE 3457C</td>
<td>Principles of Radiographic Exposure I</td>
<td>3 hours</td>
</tr>
<tr>
<td>RTE 3684</td>
<td>Physics of Image Production</td>
<td>2 hours</td>
</tr>
<tr>
<td>HSC 4550</td>
<td>Pathophysiological Mechanisms</td>
<td>3 hours</td>
</tr>
<tr>
<td>HSC 3640</td>
<td>Analysis of Instruction in the Health Professions</td>
<td>3 hours</td>
</tr>
<tr>
<td>HSC 3640</td>
<td>Health Law</td>
<td>3 hours</td>
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**SENIOR LEVEL**

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<tbody>
<tr>
<td>RAT 3001</td>
<td>Introduction to Radiation Oncology</td>
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</tr>
<tr>
<td>RAT 3242</td>
<td>Oncologic Pathology</td>
<td>2 hours</td>
</tr>
<tr>
<td>RAT 4241</td>
<td>Clinical Radiobiology</td>
<td>3 hours</td>
</tr>
<tr>
<td>RAT 3614</td>
<td>Radiation Therapy Physics I</td>
<td>2 hours</td>
</tr>
<tr>
<td>RAT 4804</td>
<td>Clinical Education II</td>
<td>5 hours</td>
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<tr>
<td>RAT 4247</td>
<td>Radiation Oncology</td>
<td>3 hours</td>
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<tr>
<td>RAT 4618C</td>
<td>Radiation Therapy Physics II</td>
<td>4 hours</td>
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<tr>
<td>RAT 4814</td>
<td>Clinical Education II</td>
<td>6 hours</td>
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<tr>
<td>RAT 4248</td>
<td>Radiation Oncology II</td>
<td>3 hours</td>
</tr>
<tr>
<td>RAT 4619C</td>
<td>Radiation Therapy Physics III</td>
<td>4 hours</td>
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<tr>
<td>RAT 4824</td>
<td>Clinical Education III</td>
<td>6 hours</td>
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<tr>
<td>STA 3023</td>
<td>Statistical Methods I</td>
<td>3 hours</td>
</tr>
<tr>
<td>RTE 4763</td>
<td>Anatomy for the Medical Imager</td>
<td>3 hours</td>
</tr>
<tr>
<td>RTE 4207</td>
<td>Methods in Radiology Management</td>
<td>3 hours</td>
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**Electives:**

<table>
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<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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</thead>
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<tr>
<td>RTE 4209</td>
<td>Radiological Administrative Practice</td>
<td>2 hours</td>
</tr>
<tr>
<td>RTE 4903</td>
<td>Directed Study in Radiologic Education</td>
<td>2 hours</td>
</tr>
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</table>

Total Semester Hours Required: 124

**Minor**

The Department of Health Professions and Physical Therapy offers a minor in Health Sciences consisting of a minimum of 18 hours. A student must complete the required course work and maintain at least a 2.5 GPA and a minimum of "C" on all Health Sciences coursework. Required Courses: HSA 3122, HUN 3011, HSC 3110 and a minimum of 9 hours of upper-division courses in the Health Professions department. Majors may not count courses presently required in a department program.

*The curriculum for the Radiologic Sciences program is currently under revision. Please contact the Department of Health Professions and Physical Therapy in the Fall of 1996 for the revised curriculum.
The Department of Molecular Biology and Microbiology offers curricular programs leading to a minor, a Bachelor of Science degree, and a Master of Science degree, each in Molecular Biology and Microbiology. The department also offers a Bachelor of Science degree in Medical Laboratory Sciences.

**Program in Molecular Biology and Microbiology**

The Core Curriculum in the baccalaureate program, with its broad and thorough grounding in the physical, computational, and life sciences, provides a solid foundation in concepts and applications of modern biology to contemporary and future problems. The Restricted Electives component of the baccalaureate program allows each student to enhance his/her academic preparation in areas of morphological, clinical, analytical or investigative applications. Students are also encouraged to gain research experience and exposure to specialized topics not taught in formal courses through the mechanism of directed research and independent study contracts with selected faculty. This thorough, but flexible, program, provides an excellent preparation for industry, graduate education, and for the four-year health professions (chiropractic, medical, dental, optometric, podiatric, pharmacy, and veterinary medicine).

**Minor in Molecular Biology and Microbiology**

The Department of Molecular Biology and Microbiology offers a minor consisting of a minimum of 30 semester hours.

**Required courses.** (22 hours) include: BSC 2010C, MCB 3013C, PCB 3233, PCB 3233L, PCB 3523, PCB 4524, and BSC 3404.

**Restricted Electives** (8 hours minimum): at least two courses from the Restricted Elective category of the baccalaureate curriculum.

To be eligible for a minor in Molecular Biology and Microbiology, a student must have a GPA of at least 2.0 in all courses taken for the minor, subject to the following constraints:

A. At least 15 of the required 30 hours must be taken in the Department of Molecular Biology and Microbiology at UCF;

B. No grades below a "C" from other institutions will be accepted;

C. No CLEP, TSD or AP credit will be accepted.

**Bachelor of Science: Molecular Biology and Microbiology**

**Degree Requirements:**

1. See Undergraduate Degree requirements

2. UCF Residency Requirement: 32 hours

3. To be eligible for a major in Molecular Biology and Microbiology, a student must complete all coursework in the baccalaureate curriculum as shown, and, earn a GPA of at least 2.0 for all coursework in the Core and Restricted Electives, subject to the following constraints:

   A. No CLEP, TSD, or AP credit may be used;

   B. No "D" grades in life science courses from other institutions will be accepted;

   C. A maximum of 3 hours of independent study, directed research, or similar credit may be used as a Restricted Elective subject to prior Departmental approval;

   D. A minimum of 20 hours must be taken at UCF in the department of the major.

**Molecular Biology and Microbiology Undergraduate Curriculum**

I. University Requirements 24 hours
   General Education Program (Communication, C&H, and Soc. Sci.) [24]

II. Departmental Requirements 81-91 hours
   A. Core Curriculum 65 hours
      Life Sciences 27 hours
      BSC 2010C General Biology 4 hours
      MCB 3013C General Microbiology 5 hours
PCB 3063, 3063L  Genetics + Genetics Lab  4 hours
PCB 3233, 3233L  Immunology + Immunology Lab  4 hours
PCB 3523, 4524  Molecular Biology I, II  6 hours
BSC 3404  Quantitative Biological Methods  4 hours

**Chemistry**

CHM 2045, 2046, 2046L  General Chemistry I, II, + Lab  8 hours
CHM 3210, 3211, 3211L  Organic Chemistry I, II, + Lab  8 hours
BCH 4053  Biochemistry I  3 hours

**Math and Stats**

MAC 3253 or MAC 3311  Applied Calculus I or Cal with Analytical Geometry I  6 hours
STA 3023  Statistical Methods I  3 hours

**Physics**

PHY 3053C, 3054C  College Physics I, II  8 hours

**CGS 1050**  Intro to Computer Science  3 hours

**B. Restricted Electives**

(Select 6 courses in consultation with advisor)  17-26 hours

- MCB 5236  Applied Microbiology  3 hours
- BCH 4054  Biochemistry II  3 hours
- BCH 4103L  Biochemical Methods  2 hours
- MCB 3203, 3203L  Pathogenic Microbiology + Lab  4 hours
- MCB 4114C  Microbial Systematics and Diagnostics  4 hours
- MCB 4414  Microbial Metabolism  3 hours
- MCB 4603  Environmental Microbiology  3 hours
- MCB 5205  Infectious Process  3 hours
- MCB 5505C  Virology  3 hours
- PCB 3703C  Human Physiology  4 hours
- PCB 5235C  Immunopathology  4 hours
- PCB 5806C  Endocrinology  3 hours
- ZOO 3733C  Human Anatomy  4 hours
- ZOO 4603C  Vertebrate Embryology  5 hours
- ZOO 4753C  Vertebrate Histology  5 hours
- ZOO 5745C  Essentials of Neuroanatomy  4 hours

**III. Unrestricted Electives**  5-15 hours

Total Credits Required for Degree  120

Notes: * Those students interested in pursuing graduate or professional education are strongly advised to select the following courses: Physics for Scientists and Engineers I & II (PHY 3048, 3049, 3048L, 3049L); Applied Calculus I & II (MAC 3253, 3254) or Calculus with Analytic Geometry I & II (MAC 3311, 3312). Students may select a course in computer science with a higher number in consultation with their advisor.

**Program in Medical Laboratory Sciences**

**Director:** D. Hitchcock, BIO 104, Phone (497) 823-2968

Medical technologists are involved in medical diagnosis, treatment, surveillance, management, research, and education. They use highly sophisticated equipment such as electronic cell counters, automated analyzers, computers, and microscopes in the examination of body tissues and fluids.

The curriculum is designed to give students a thorough background in the physical and biological sciences; to develop the understanding, skills, and ability essential to assume leadership roles in management and education; to develop a high level of proficiency in the clinical laboratory; and to develop an awareness for continuing education needed for professional growth.

The last two years of sequential courses constitute the upper division portion of the Program. The size of the class to be selected in the Medical Laboratory Science Program is determined by the availability of space and equipment, requirements concerning class size set for by the Program Accrediting Agency, and available spaces in the clinical facilities.

Admission to the University does NOT constitute admission to the upper division of the Medical Laboratory Science Program. SEPARATE APPLICATION must be made through the Medical Laboratory Science Program office by March 1 in the year in which the student wishes
to enter the upper division portion of the Program. A minimum overall GPA of 2.5 and a minimum grade of "C" in prerequisite and major courses is required for admission to, continuation in and graduation from the program.

Students are interviewed by a clinical coordinator from an affiliated hospital to ensure prerequisites have been completed and that the student meets the requirements as stated above. Indication of ability is also considered. Interview results are then submitted to the Selection Committee for final approval.

For the last seven months of the program, the students will be assigned to a hospital laboratory for clinical experience. The affiliated hospitals are located in Bradenton, Inverness, Lakeland, Orlando, Winter Haven and Rockledge. It may be necessary for the student to relocate to any of these areas for this period. A minimum 2.5 overall GPA is required for clinical assignment.

The Degree in Medical Laboratory Sciences will be awarded upon satisfactory completion of the University's didactic component and the clinical component in an affiliated hospital laboratory.

Upon receiving the degree in Medical Laboratory Sciences, the graduate will be eligible to write a national certification examination and the State of Florida licensure examination.

**Bachelor of Science: Medical Laboratory Sciences**

**Degree Requirements**
1. See Undergraduate Degree Requirements
2. UCF Residency Requirement: 34 hours
3. See special college and/or department requirements
4. Required Courses
5. Electives: Total Semester Hours Required 126

**Prerequisites for professional phase admission**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<tr>
<td>BSC 2010C</td>
<td>General Biology</td>
<td>4</td>
</tr>
<tr>
<td>MCB 3013C</td>
<td>General Microbiology</td>
<td>5</td>
</tr>
<tr>
<td>CHM 2045, 2046</td>
<td>Chemistry Fundamentals I &amp; II</td>
<td>7</td>
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<tr>
<td>CHM 2046L</td>
<td>Chemistry Fundamentals II Laboratory</td>
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<tr>
<td>CHM 3210</td>
<td>Organic Chemistry I</td>
<td>3</td>
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<tr>
<td>CHM 3211, 3211L</td>
<td>Organic Chemistry II &amp; Lab</td>
<td>5</td>
</tr>
<tr>
<td>MAC 1104</td>
<td>College Algebra</td>
<td>3</td>
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<tr>
<td>PCB 3703C</td>
<td>Human Physiology</td>
<td>4</td>
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<tr>
<td>STA 3023</td>
<td>Statistical Methods I</td>
<td>3</td>
</tr>
<tr>
<td>ZOO 3733C</td>
<td>Human Anatomy</td>
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**Upper Division Professional Phase**

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<tr>
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<tr>
<td>PCB 3233, 3233L</td>
<td>Immunology, Immunology Lab</td>
<td>3, 1</td>
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<tr>
<td>MLS 3220</td>
<td>Clinical Microscopy with Lab</td>
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<tr>
<td>MLS 3305C</td>
<td>Hematology</td>
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<tr>
<td>MLS 3705</td>
<td>Concepts in Education/Management</td>
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<tr>
<td>MLS 4830C, 4831C, 4832C, 4833C, 4834C</td>
<td>Clinical Practice I, II, III, IV, &amp; V</td>
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<tr>
<td>MLS 4460</td>
<td>Clinical Pathogenic Microbiology</td>
<td>4</td>
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<tr>
<td>MLS 4625C, 4630C</td>
<td>Advanced Clinical Chemistry I &amp; II</td>
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<tr>
<td>MLS 4334C</td>
<td>Hemostasis</td>
<td>2</td>
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<tr>
<td>MLS 4550C</td>
<td>Clinical Immunohematology</td>
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<tr>
<td>MLS 4420C</td>
<td>Clinical Mycology</td>
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<tr>
<td>MLS 4430C</td>
<td>Clinical Parasitology</td>
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<td>MLS 4506C</td>
<td>Immunodiagnostics</td>
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<td>HSA 4700</td>
<td>Research in Health Sciences</td>
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<tr>
<td>MLS 4932</td>
<td>Medical Technology Seminars</td>
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<tr>
<td>CGS 3000</td>
<td>Computer Fundamentals for Business Appl</td>
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6. Electives: Total Semester Hours Required 126
SCHOOL OF NURSING

Director: E. Stullenbarger, HP 410, Phone (407) 823-2744
Faculty: Browne-Krimsley, Brunell, Bushy, Covelli, Crigger, Dorner, Dow, Giovinco, Gropper, Hennig, Kapke, Kijek, Noll, Peragallo, Ramey, Smith, Wink

The nursing curriculum leads to the Bachelor of Science in Nursing degree, the basis of professional nursing practice. The BSN graduate is prepared to provide comprehensive care in a variety of acute, community, and rehabilitative settings. Program emphasis includes clinical nursing practice, health promotion and maintenance, and preparation for assuming leadership roles. The baccalaureate curriculum provides the foundation for graduate study in nursing.

Acceptance to the University does not constitute admission to the upper-division, limited access nursing major. SEPARATE APPLICATION must be made directly to the School of Nursing prior to February 1 of the year in which Fall admission is sought. Completion of the Baccalaureate degree, A.A. degree or UCF General Education Program is required along with completion of nursing prerequisite courses with a grade of "C" or better, an overall GPA of 2.5 or above, and completion of the university foreign language admission requirement. Graduates are eligible to take the licensing examination for registered nurses.

Bachelor of Science: Nursing

Degree Requirements
1. See Undergraduate Degree Requirements
2. UCF Residency Requirement: 30 hours
3. See special college and/or School requirements
4. Required Courses - Generic Students **
   Prerequisites to Nursing Major to be completed with a grade of "C" or higher prior to admission to the major
   MCB 3013C General Microbiology 5 hours
   ZOO 3733C Human Anatomy 4 hours
   PCB 3703C Human Physiology 4 hours
   PSY 2013 General Psychology 3 hours
   SYG 2000 Sociology 3 hours
   CHM 1032 General Chemistry 3 hours
   STA 2014 or 3023 Principles of Statistics 3 hours
   SOW 3104 Assessing Human Development 3 hours
   DEP 3004 Developmental Psychology 3 hours
   HUN 3011 Human Nutrition 3 hours

Upper-Division Professional Phase
   NUR 3105 Introduction to Baccalaureate Nursing 3 hours
   NUR 3748C Concepts Basic to Nursing Practice 6 hours
   NUR 3065 Health Assessment 3 hours
   NUR 3165 Critical Inquiry 3 hours
   NUR 3749C Scientific Theories of Nursing I 6 hours
   NUR 3217C Scientific Theories of Nursing II 6 hours
   NUR 3358C Scientific Theories of Nursing III 5 hours
   NUR 3355C Scientific Theories of Nursing IV 5 hours
   NUR 4535C Scientific Theories of Nursing V 6 hours
   NUR 4635C Scientific Theories of Nursing VI 6 hours
   NUR 4827C Scientific Theories of Nursing VII 6 hours
   NUR 4820 Professional Development and Issues 3 hours
   NUR 4941C Selected Nursing Practicum 3 hours
   NUR Nursing Elective 3 hours

b. Required Courses and Specific (additional) Admission Criteria - RN to BSN
   Prerequisites:
Graduate of NLN accredited program
Current RN License in state of Florida
Statistics Course - grade of "C" or better prior to NUR 3165

Upper Division Professional Phase
NUR 3809 Trans. Concepts in Nursing I 3 hours
NUR 3065 Health Assess. 3 hours
NUR 3165 Critical Inquiry 3 hours
*Validation Credit 28 hours
NUR 4084 Trans. Concepts in Nursing II 3 hours
NUR 4635 Scientific Theories of Nursing VI 6 hours
NUR 4827 Leadership and Management Principles 3 hours
NUR 4XXX Professional Issues and Development 2 hours
NUR 4XXX Directed Nursing Practice 4 hours
NUR Nursing Elective 3 hours

* As an NLN accredited program, the UCF School of Nursing is required to validate Registered Nurses prior knowledge in the areas of Adult Health, Childbearing, Child Health and Mental Disorders. This can be met by the RN doing one of the following: Successful completion of the NCLEX (National Council Licensure Examination) within the last two years or successful completion of validation examinations (either NLN Mobility II profile or ACT-PEP examination) or evidence of professional experience within the past two years. Validation exams must be completed prior to enrollment into the course NUR 4084.

5. Restricted Electives: One course in nursing
6. Electives: None

Total Semester Hours Required 124

** The curriculum for the basic (generic) undergraduate nursing program is currently under revision. Please contact the School of Nursing in the Fall of 1996 for the revised curriculum.

PRE-HEALTH PROFESSIONS: See Pre-Health Professions Advising.

DEPARTMENT OF PUBLIC ADMINISTRATION

Chair: W. Lawther, HPB 202, Phone (407) 823-2604
Faculty: Aristigueta, Berman, Colby, Gianakis, June, Lawther, Liou, Rios, Shapek

The Public Administration course of study is designed to provide students with a broad understanding of the roles and functions of administrative agencies in the American system of government as well as prepare them for professional careers in public service at the federal, state, regional, or local level. Satisfactory completion of program requirements leads to the degree of Bachelor of Arts with a major in Public Administration. The baccalaureate program in Public Administration is offered on the Orlando and Brevard campuses.

Bachelor of Arts: Public Administration

Degree Requirements
1. See Undergraduate Degree Requirements
2. Prerequisite Courses (9 hours)
   CGS 1060 Intro to Computer Sciences 3 hours
   POS 2041 American National Government 3 hours
   ECO 2013 Principle of Economics 3 hours
3. Core Courses (21 hours)
   ENC 3210 Business Report Writing 3 hours
   PAD 3003 Public Adm in American society 3 hours
   PAD 4034 Administration of Public Policy 3 hours
   PAD 4104 Administrative Theory 3 hours
   PAD 4204 Fiscal Management 3 hours
   PAD 4414 Public Personnel Administration 3 hours
   PAD 4270 Survey Research in Public Adm 3 hours
4. Restricted Electives (27 hours) *

Public Administration electives, including internship (min. 2.5 GPA) are required as follows: Double Majors, those who complete PAD BA requirements, and those of another UCF major, 6 hours, min. Those who complete a recognized UCF minor in a discipline outside Public Administration, 9 hours, min. All other PAD majors must complete at least 12 hours of PAD electives within the restricted elective area.

* Restricted Electives should be taken from Public Administration electives. Electives can also be taken from other allied supporting fields such as accounting, legal studies, communications, computer science, criminal justice, economics, political science, social work, sociology and statistics.

5. Electives (3 hours)

Minor:
The Public Administration program offers a minor in Public Administration consisting of 21 hours. All seven of the PAD required core courses for the major will be required of the PAD minor. These are PAD 3003, PAD 4414, PAD 4104, PAD 4204, PAD 4034, PAD 4270 and ENG 3210.

SCHOOL OF SOCIAL WORK

Director: I. Colby, TR 542, Phone (407) 823-2114
BSW Program Director: E. Suh, TR 542, Phone (407) 823-2214
Faculty: Abel, Colby, Green, Jacinto, Kazmerski, Kiam, Leon, Pomeroy, Poole, Suh, Van Hook

The School of Social Work offers a professional degree program which is nationally accredited by the Council on Social Work Education. Its primary focus is the preparation of students for entry-level professional social work practice within diverse human service organizations such as hospitals, schools, correctional settings, public welfare departments, child placement organizations, community centers, and counseling agencies.

SEPARATE APPLICATION to the limited access program must be made to the School of Social Work. Students are admitted to the undergraduate program only in the summer or fall term. For acceptance into the program students must have a 2.0 overall GPA, must have completed an AA (from a Florida State Community College) or U.C.F. General Education Program, and must have completed 18 semester hours of pre-professional courses (see Section 4 below for list of courses). Personal qualifications include intelligence, initiative, social concern, appreciation for human diversity, dependability, humanitarian interests in helping people and in improving human services and college-level reading and writing skills. Student qualifications are reviewed initially and on an ongoing basis.

To qualify for graduation and for entry into field education (SOW 4510), a student must have a 2.5 GPA in the major and a grade of at least "C" in all social work courses. At the time of admission to field education, the student should have no more than 18 hours of courses to complete to graduate. Students also must complete 30 credits hours in social work at UCF to graduate from the program.

Bachelor of Social Work

Degree Requirements

1. See Undergraduate Degree Requirements
2. See special college and/or school requirements
3. UCF general education requirements, or AA degree from a Florida state community college
4. Required Courses
   Pre-professional courses, to be completed PRIOR to admission to the major:
   - POS 2041 American Government 3 hours
   - BSC 1020C Biology 3 hours
   - CGS 1060C Computer Science 3 hours
   - ECO 2013 Economics 3 hours
<table>
<thead>
<tr>
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<th>Hours</th>
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<tr>
<td>PSY 2013</td>
<td>Psychology</td>
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<tr>
<td>SYG 2000</td>
<td>Sociology</td>
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</tr>
<tr>
<td>SOW 3104</td>
<td>Assessing I: Human Development</td>
<td>3</td>
</tr>
<tr>
<td>SOW 3111</td>
<td>Assessing II: Human Systems</td>
<td>3</td>
</tr>
<tr>
<td>SOW 3203</td>
<td>Social Welfare and Community Resources</td>
<td>3</td>
</tr>
<tr>
<td>SOW 3401</td>
<td>Social Work Research</td>
<td>3</td>
</tr>
<tr>
<td>SOW 3420</td>
<td>Social Work with Minorities</td>
<td>3</td>
</tr>
<tr>
<td>SOW 4431</td>
<td>Eval Social Work Pract and Serv Prog</td>
<td>3</td>
</tr>
<tr>
<td>SOW 3300</td>
<td>Practice I: Generalist Practice in Social Work</td>
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</tr>
<tr>
<td>SOW 3352</td>
<td>Practice II: Interpersonal Skills in Soc Work Prac</td>
<td>3</td>
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<tr>
<td>SOW 4232</td>
<td>Social Welfare Policies and Issues</td>
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<tr>
<td>SOW 4341</td>
<td>Micro-level Roles and Interventions in Social Work</td>
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<tr>
<td>SOW 4343</td>
<td>Macro-level Roles and Interv in Soc Work</td>
<td>3</td>
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<tr>
<td>SOW 4510</td>
<td>Field Education</td>
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<td>SOW 4522</td>
<td>Field Education Seminar</td>
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<td>DEP 3464</td>
<td>Psychology of Aging</td>
<td>3</td>
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<tr>
<td>HSC 4564</td>
<td>Health Care Needs of the Elderly</td>
<td>3</td>
</tr>
<tr>
<td>SYP 4730</td>
<td>Sociology of Aging</td>
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</tr>
<tr>
<td>SOW 4645</td>
<td>Social Services for the Elderly</td>
<td>3</td>
</tr>
<tr>
<td>HSA 4941</td>
<td>Internship</td>
<td>3</td>
</tr>
</tbody>
</table>

The School will require that all social work majors either meet the requirements of the UCF foreign language graduation policy for the BA degree or complete two courses in foreign culture or cultural diversity. Specific details are available from the school.

### Gerontology Certification Program

In recognition of the special needs of the elderly citizens of Central Florida, the University offers a fifteen hour interdisciplinary program leading to a Certificate in Gerontology. The program is completed with the undergraduate major of the student and is administered by the School of Social Work. The program may be of particular interest to students who are majoring in health sciences, psychology, social work, nursing, or sociology. Other students, such as those majoring in music, music education, physical education, or art education may also find the program valuable.

To receive the Certificate in Gerontology, the students must successfully complete the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEP 3464</td>
<td>Psychology of Aging</td>
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</tr>
<tr>
<td>HSA 4941</td>
<td>Internship</td>
<td>3</td>
</tr>
</tbody>
</table>
DIVISION OF CONTINUING EDUCATION

Associate Vice President: Thomas A. Shostak
Administrative Assistant: Linda Hayes Gallegos
36 West Pine Street
Orlando, Florida 32801
Voice (407) 317-7700 FAX (407) 317-7744

CENTER FOR MULTILINGUAL MULTICULTURAL STUDIES
Director: Consuela Stebbins, TR 547, (407) 823-5515
Assistant Director: Myrna Creasman, TR 547, (407) 823-5515

Using contemporary teaching methodology and computer-assisted instruction, the Center for Multilingual Multicultural Studies provides English language instruction for international students. Four levels of instruction are offered which range from beginning to advanced, and special attention is given to preparing students for academic coursework in their specialized fields of study. Full-time students enrolled at the advanced level may elect to take courses as nondegree-seeking students while enrolled in the intensive English program. Students are required to take an entry placement test to determine their level of proficiency. Student (F-1) visas are extended to qualified applicants. The Center also offers English for Special Purposes for international business personnel.

CENTER FOR OUTREACH CREDIT
Director: Dale A. Badger, TR 547, (407) 823-6115
Program Coordinator: Elizabeth Baab, TR 547, (407) 823-6114

The Center for Outreach Credit serves as a facilitator for the academic colleges and performs the overall planning, coordination, and management of approved off-campus credit courses, degree programs, sponsored contract courses, and accelerated on-campus instruction for students.

Credit courses and programs offered by the academic colleges and coordinated by the Center are tailored to meet the educational needs of local residents and area business, industry, and government employees. The goal of the Center for Outreach Credit is to unite University and public/private sector resources for the purpose of providing to participants an opportunity to achieve personal aspirations and to maintain or enhance their professional and technical competencies. Open enrollment registrations facilitated by the Center do not constitute regular admission to the University.

CENTER FOR PROFESSIONAL DEVELOPMENT
Director: Thomas A. Shostak, TR 547, (407) 823-6101
Program Coordinator: John Duryea, TR 547, (407) 823-6111

The Center for Professional Development offers non-credit educational programs designed to meet the professional development needs of individuals and organizations throughout the State and the region. Offerings include seminars, workshops, conferences, symposia, and certificate programs that enable practitioners to seek personal enrichment and/or professional advancement. Programs are developed in cooperation with the academic colleges and institutes, and University faculty and support services are utilized to bring maximum benefit to both non-traditional and traditional learners.

The Center also works closely with business, professional, and service organizations to design the programs that best meet the needs of the working community. To substantiate the content of professional programs, as well as to offer credentials to verify a learner’s participation, Continuing Education Units (CEU’s) are offered to qualified and eligible participants.
DISTANCE LEARNING

Director: Thomas A. Shostak, 36 West Pine Street, Orlando, FL 32801, (407) 317-7700

Through its Instructional Television Fixed Service system (ITFS), UCF offers students at area campuses and at several locations throughout Central Florida the opportunity to "attend" credit courses by way of interactive television. Among the receive sites are the two area campuses (Brevard and Daytona Beach), the two academic centers (South Orlando and Downtown), major corporations and businesses throughout Central Florida, and each of the local community colleges. Certain courses are also available to students on videotape at the area campuses and centers. Courses available on videotape or live television are listed each semester in the schedule of classes.

DOWNTOWN ACADEMIC CENTER

Director: Thomas A. Shostak, 36 West Pine Street, Orlando, FL 32801, (407) 317-7700
Program Coordinator: Linda Hayes Gallegos

In the fall of 1996, UCF will be opening a Downtown Academic Center in the heart of downtown Orlando. The facility will provide office space for several University academic departments and support programs. Five classrooms, including a large lecture hall, will provide space for a variety of credit and non-credit courses and programs designed to meet the needs of the business and residential community of Orlando. Meeting space, a computer lab, and registration services will also be available.
SOUTH ORLANDO CENTER
Director: Thomas A. Shostak, 7300 Lake Ellenor Drive, Orlando, FL 32809, (407) 855-0881

The South Orlando Center is located in Orlando Central Park, a site convenient to students who live or work in southwest Orange County and north Osceola County. The Center offers some upper division evening courses, undergraduate and graduate vocational education classes, and a graduate engineering program. It also provides a variety of non-credit programs specifically designed to meet the needs of business and industry in the area, and serves as a site for statewide meetings and workshops. A television studio at the center has the capacity to receive signals for live interactive television courses. There is a small computer lab for student use, and the library is equipped with LUIS terminals. Admissions and financial aid information is available, as well as on-site registration for all UCF courses.

Recess! Program

Agerege Program

t Ranch and student services are available, from enrollment to academic services, from campus housing to career services, from counseling to financial aid, from athletics to student organizations. The Center offers a variety of programs and services to meet the needs of students, including academic counseling, tutoring, study skills workshops, computer labs, and a career center. The Center also sponsors a variety of cultural and social events throughout the year, including concerts, lectures, and art exhibitions. The Center is located near the University of Central Florida, making it a convenient location for students who live on campus or commute from nearby communities. The Center is open to students of all ages and backgrounds, and welcomes students from all walks of life. Whether you are a high school student looking to get a head start on your college education, a returning adult looking to earn a degree, or a student looking to transfer to another institution, the South Orlando Center has something to offer you. Come see what the Center has to offer and discover the potential for success that awaits you at UCF.
INSTITUTES AND CENTERS FOR RESEARCH

CENTER FOR RESEARCH AND EDUCATION IN OPTICS AND LASERS (CREOL)

CREOL is the State University System of Florida’s Center of Excellence for research and education in optical and laser sciences and engineering. CREOL was established in 1986 by the Florida legislature to bring together diverse disciplines into a cohesive program in optics and lasers. Research activities at the Center are integrated with the academic program to insure involvement of both students and faculty. CREOL has 28 faculty positions devoted to lasers and optical sciences and engineering of which 22 have been filled by scholars from around the world. CREOL Faculty are among the best in the laser/optics fields - half hold the rank of Fellow in major national and international societies associated with optics (e.g. Optical Society of America (OSA), the International Optical Engineering Society (SPIE) etc.). The faculty serve in major leadership positions in these societies, including service on the Boards of Directors and as officers of the societies. In a typical year approximately 50% of the faculty are asked to chair, co-chair, or serve organizing committees of major national and international conferences dealing with their research specialties. The faculty and students of CREOL typically produce over 200 scholarly works per year. CREOL is located adjacent to the other science buildings on the campus of UCF in a new 82,000 square foot research facility.

Research Program

CREOL research projects reflect the interdisciplinary nature of the faculty and their diverse interests and is supported by federal, state and industrial research grants. Faculty and students pursue joint research projects with industry and government laboratories. Current research activities include: laser propagation, laser/material interaction, non-linear optics, guided-wave optics, optical systems, optical signal processing, laser development, detector technology, ultrafast phenomena, modern x-ray optics and lithography, laser plasma, nonlinear optical spectroscopy, diffractive optics, thin film optics, free electron lasers, photonics, optoelectronics, semiconductor optical device integration, growth of nonlinear and laser host materials, solid state and diode pumped lasers, laser-aided materials processing and manufacturing, glass processing and characterization, optics manufacturing, and much more. The research facilities include ninety laboratories equipped with over twelve million dollars of state-of-the-art optics equipment.

Academic Program

The academic program involves students from various science and engineering departments and reflects the diverse interest of the faculty and students. Degrees of MS and Ph.D. in Optical Sciences and Engineering, Optical Physics, Electrical Engineering, Mechanical Engineering and Physics are offered at UCF. The academic program includes 25 specialized courses in electro-optics and lasers as well as advanced Electrical Engineering and Physics courses. Graduate research assistantships up to $15,000 per year are available at CREOL for highly qualified students through CREOL and the Litton Foundation.

Research Experiences for Undergraduate Students

CREOL carries out a nationwide recruitment of undergraduate science and engineering students for a program of research and training in optics and lasers. Students receive a $3,300 stipend and a $600 housing allowance, with funds provided jointly by the National Science Foundation and CREOL. The three year project selects ten students per year to participate in an 11 - week research project. The program encourages talented students, particularly minorities and persons with disabilities, to pursue graduate studies in optics and lasers.

For information contact CREOL/UCF, PO Box 162700, Orlando, FL 32816-2700. telephone (407) 823-6800, FAX (407) 823 - 6880, email: reu@creol.ucf.edu Contact persons: Dr. M. J. Soileau, Director, or Dr. M. G. Moharam, Chair, Academic Affairs Committee.
INSTITUTE FOR SIMULATION AND TRAINING (IST)

The Institute for Simulation and Training (IST) is an internationally recognized research institute that focuses on technology advancement in training systems, education, and simulation and modeling.

The Institute serves as a focal point for the simulation and training community by providing research and education services, and as an information center for simulation and training research, most notably as the hub of the worldwide Distributed Interactive Simulation effort. IST is located in the Central Florida Research Park, adjacent to the UCF campus. The Naval Air Warfare Center Training Systems Division (NAWCTSD), the Army Simulation, Training and Instrumentation Command (STRICOM) are also located in the Research Park. Additionally, more than 150 training and simulation companies maintain a presence in the Orlando area.

IST's research staff consists of scientists, engineers, and students. Program Managers and Principal Investigators are tailored interdisciplinary research teams to specific projects. IST researchers conduct basic and applied research for a broad range of training devices and programs. Research areas include: Distributed Interactive Simulation networking, Dynamic Terrain, Autonomous Computer Generated Forces, Virtual Reality, training systems effectiveness, computer graphics and animation, user interface design, computer architectures, simulation modeling, database design and development, and instructional systems design.

 Laboratories, work space and administrative offices occupy nearly 46,000 square feet of floor space. Major laboratories include Visual Systems, Distributed Interactive Simulation, Computer Generated Forces, Mathematics Simulation, and the Advanced Learning Technology Transfer Center.

IST actively works with UCF to assist in the development of simulation related curricula. UCF was the first university in the nation to offer a master's degree in simulation systems. More than 100 graduate and undergraduate students work at the Institute in a variety of research and support positions. IST researchers and students have presented award winning papers at conferences throughout the country.

In its role as a leader in the simulation and training community, the Institute has undertaken a program of technology transfer. Included in this effort is the development of research projects with potential commercial applications, adaptation of military technology to civilian educational markets, and the communication of research results through seminars, publications and workshops.

Contact Person: Dr. A. Louis Medin, Executive Director, 3280 Progress Dr., Orlando, FL, 32826-0544, Phone (407) 658-5000; FAX (407) 658-5059

SPACE EDUCATION AND RESEARCH CENTER (SERC)

The Space Education and Research Center (SERC) is an interdisciplinary organization that relies on faculty participation from all five colleges of the University.

SERC's goal is to maximize space research opportunities for UCF faculty and students, while providing highly valued results to the space community.

SERC Objectives are to:
- Facilitate the performance of research to advanced space technology.
- Serve as a catalyst to advance educational opportunities and experiences.
- Provide researchers with access to the upper atmosphere and space.
- Upgrade UCF capabilities through training and development programs.
- Advocate UCF's contributions to commercial space services.
- Be an active participant in the international space community.

Space research areas of interest include advanced launch systems, communications, the earth systems sciences, educational technology, and space optics. Over 50 faculty members at the University have expertise and experience in these areas.

In education, SERC serves to aid in the development of new space related courses and programs. SERC also works with industry, government and the Central Florida school districts to improve science and mathematics education through the use of space applications and technology.
Contact Person: Carine Strebel Halpern, Project Administrator, 12424 Research Parkway, Room 400, Orlando, FL 32826, Phone: (407) 658-5599, Fax: (407) 658-5595, email: serc@pegasus.cc.ucf.edu

CENTER FOR APPLIED HUMAN FACTORS IN AVIATION (CAHFA)

The Center for Applied Human Factors in Aviation (CAHFA) has as its mission the enhancement of safety in the nation's airspace system through applied human factors research, systems design and training strategies. Chartered in 1990, CAHFA is a research consortium established between UCF and Charter partner Embry-Riddle Aeronautical University, Daytona Beach, Florida. CAHFA's professional staff maintains offices on both campuses. The complimentary strengths of the two universities are combined to create a research resource that is without peer for solving a vast assortment of aeronautical human factors problems. CAHFA research initiatives are targeted to significantly reduce human factors related accidents and incidents by determining the efficacy of and by developing strategies for achieving improvements in human performance.

Contact Person: Dr. Jefferson M. Koonce, Director and Chief Scientist, Phone (407) 823-1011; FAX (407) 638-5862

FLORIDA SOLAR ENERGY CENTER (FSEC)

The Florida Solar Energy Center is the largest and most active state-supported alternative energy research institute in the United States. Its new facilities are located on the Cocoa campus of UCF at Brevard Community College. FSEC has gained national and international respect for its programs on photovoltaics, hydrogen from renewables, pollutant detoxification, photocatalytic processes, energy-efficient buildings, advanced cooling technologies, and solar thermal systems. It operates the only certified solar equipment testing program in the country. FSEC's work encompasses research and testing programs of national interest for a variety of external sponsors. The yearly value of FSEC's external contracts exceeds its state support by a factor of two. Through its public information office, FSEC responds to more than 15,000 requests for energy information each year. The Center also conducts seminars and workshops for teachers and professionals statewide, and its technical library boasts one of the nation's most extensive holdings on solar and alternative energy. For additional information, contact the Florida Solar Energy Center, 1679 Clearlake Road, Cocoa FL 32922-5703.

Contact Person: Mr. Ken Sheinkopf, Phone: (407) 638-1007; Fax: (407) 638-1010.

FLORIDA-CANADA INSTITUTE

The Florida-Canada Institute is hosted by the University of Central Florida for the State of Florida. The institute's purpose is to create and foster educational, cultural, and commercial ties between Florida and Canada. The institute sponsors several activities, including a workshop for school teachers, visits by distinguished speakers and government officials, and information outreach. Palm Beach Community College in Lake Worth is the co-host for the Florida-Canada Institute.

Director, TBA, Phone (407) 823-2079.

FLORIDA EASTERN EUROPE LINKAGE INSTITUTE

The Florida-Central East Europe Institute is hosted by the University of Central Florida and Lake Sumter Community College for the Florida International Affairs Commission. The purpose of the Institute is to create and foster educational, commercial, cultural and social exchanges between the countries in central and eastern Europe and Florida.

Contact Person: TBA, Research Pavilion, Suite 130, Phone: (407) 658-5571 or (407) 647-8022, FAX (407) 658-5570.

SMALL BUSINESS DEVELOPMENT CENTER

The Small Business Development Center (SBDC) is part of a statewide organization designed to promote economic development by responding to the needs of the small business community. The SBDC, located in the College of Business Administration at the University of Central Florida, is responsible for a geographic area including Orange, Osceola, Lake, Citrus, Volusia, Flagler, and Sumter counties. Regional centers located at Daytona Beach Community College, Brevard Community College and Seminole Community College assist small business
in those areas. Assistance is provided through workshops and individual counseling in the following areas:

- Personnel
- Bookkeeping
- Business Tax
- Franchising
- Marketing
- Sources of Financing
- Product Innovation
- Business Plan Development

Additional programs provide assistance to clients in the areas of government contracting, energy conservation and international trade.

Contact Person: Mr. Aloyse T. Polfer, Director, BA 309, Phone (407) 823-5554.

CENTER FOR ECONOMIC EDUCATION

The Center for Economic Education strives to increase public knowledge of economic principles and their applications in daily life.

Researchers at the Center develop, collect, and distribute economic educational materials. They also consult with and provide instruction to area schools (K-12), community colleges, and community organizations. Instruction focuses on the principles of economics and their use in making rational economic decisions. Affiliated with the National Council on Economic Education and the Florida Council on Economic Education, the Center also conducts research in economic education.

Contact Person: Dr. Robert L. Pennington, Director, BA 325, Phone (407) 823-2870

INSTITUTE FOR STATISTICS

The Institute for Statistics provides statistical consulting and analytical support to all areas of the University. The Institute makes valuable contributions to research by supporting non-statistical researchers with statistical consulting assistance during the planning of experiments and investigations, analysis of data, and the evaluation of results. The Institute also provides statistical support to various government agencies and private organizations.

Contact Person: Dr. Mark E. Johnson, Director, Phone (407) 823-2289.

DICK POPE, SR. INSTITUTE FOR TOURISM STUDIES

The Dick Pope Sr. Institute for Tourism Studies is dedicated to improving the quality of the tourism product and increasing the benefits of tourism accruing to the industry, the state and local community. To this end the Institute is involved in a variety of programs in the fields of research and public awareness.

The research includes the collection, development and dissemination of information relevant to the tourism and hospitality industry in the areas of marketing, consumer behavior and visitor satisfaction, feasibility, economic, motivational, and forecasting. Some of the Institute's patrons include tourism promotion agencies at the state and local levels; tourism development commissions; professional associations; and private enterprises such as attractions, hotels, motels, food-service establishments, ground and air transportation companies, travel agencies and tour operators, and other related businesses.

The Institute devotes significant efforts to increasing public awareness of the tourism industry in Florida and elsewhere, and of the contribution of the industry to the social and economic welfare of the general public.

Contact Person: Dr. Ady Milman, Director, Phone (407) 823-2188

SMALL BUSINESS INSTITUTE

Business schools have for some years been interested in getting students out of the classroom and involved with real business problems rather than "textbook" situations. By sponsoring the Small Business Institute program, the University of Central Florida does not only satisfy this need, but at the same time provides free professional help to small businessmen who are in need of managerial guidance.

The SBI program uses a team of senior-level undergraduate or graduate-level students who, under faculty supervision, provide management counseling and technical assistance to small business clients. Examples of these services are: general management audits, development of business plans, establishment of accounting systems, design of inventory systems, cost analysis, pricing strategies, and evaluation of alternative markets.
The major objective of the College of Business Administration at the University of Central Florida is to educate men and women for positions of productive responsibility in business and the professions. UCF's Small Business Institute program stresses analytic ability and the student's learning skills in recognizing and coping with change. The Small Business Institute program at the same time provides on the job experience and sound academic training for the student.

Contact Person: Dr. Ron Rubin, Director, Phone (407) 823-2682

FLORIDA INSTITUTE OF GOVERNMENT
AT THE UNIVERSITY OF CENTRAL FLORIDA

The Institute of Government, an affiliate of the Florida Institute of Government, is housed in the College of Health and Public Affairs and provides training and development as well as technical assistance to federal, state, and local government agencies and intergovernmental associations. Training workshops, certification programs, conferences, seminars, applied research projects, citizen surveys, strategic planning, and organizational development programs are among the services offered by the Institute.

Director: Ms. Marilyn Crotty, Phone: (407) 317-7745, FAX (407) 317-7750.

INSTITUTE FOR TECHNICAL DOCUMENTATION

The Institute for Technical Documentation offers a variety of services for client companies, including the development of original technical documentation, the translation of documentation written in foreign languages, and the development of seminars to assist clients in writing their own documentation.

The Institute consists of a core of permanent professional staff, supplemented by University faculty, staff, and students, all of whom have demonstrated expertise in technical writing of documentation. These services are enhanced by the cooperative efforts of educators, engineers, foreign language experts, psychologists, and scientists who act as consultants to the Institute.

Trained writers, established facilities, and continued contact with personnel in industry and research enable the Institute to engage in a wide variety of documentation projects.

Contact Person: Dr. Daniel Jones, Director, FA 301, (407) 823-2212.

CENTER FOR EXECUTIVE DEVELOPMENT

The Center for Executive Development of the College of Business Administration is committed to providing the best management and executive development programs in the State of Florida. Utilizing the resources of the College and University faculty, visiting executives and educators from around the world, the Center provides management and executive seminars in the areas of real estate, small business, general manager, hospitality and human resources management for over 5,000 participants per year. Programs run from one day to over two weeks in length. Center activities are coordinated by program coordinators who are responsible for the following areas: Public Programming, In-House Custom Seminars, Real Estate/Small Business 2000 and the Special Projects Groups. Examples of current programming within the Center includes: Train-the-Trainer, Management Development Series, Electronic Meeting/GroupWare System, Negotiation Skills, Purchasing, Supervising and Managing People, Lockheed Management Institute, and the Tax and Accounting Conference.

Also housed within the Center is the International Center for Business Leadership (ICBL). The function of the ICBL is to extend the reach of the College of Business to the global arena with programs that attract participants from around the nation and the world. The ICBL will use a UCF and global faculty network to provide world-class management and executive education programs for individuals and organizations.

Contact Person: TBA

OAK RIDGE ASSOCIATED UNIVERSITIES (ORAU)

Since 1989, students and faculty of the University of Central Florida have benefited from its membership in Oak Ridge Associated Universities (ORAU), a consortium of colleges and universities and a management and operating contractor for the U.S. Department of Energy (DOE) located in Oak Ridge, Tennessee. ORAU works with its member institutions to help their students and faculty gain access to federal research facilities throughout the country; to
keep its members informed about opportunities for fellowship, scholarship, and research appointments; and to organize research alliances among its members.

Through the Oak Ridge Institute for Science and Education, the DOE facility that ORAU manages, undergraduates, graduates, postgraduates, as well as faculty enjoy access to a multitude of opportunities for study and research. Students can participate in programs covering a wide variety of disciplines including business, earth sciences, epidemiology, engineering, physics, pharmacology, ocean sciences, biomedical sciences, nuclear chemistry, and mathematics. Appointment and program length range from one month to four years. Many of these programs are especially designed to increase the numbers of underrepresented minority students pursuing degrees in science- and engineering-related disciplines. A comprehensive listing of these programs and other opportunities, their disciplines, and details on locations and benefits can be found in the Resource Guide and the Minority Research Education Programs brochure, which are available by calling the contacts below.

ORAU's office for University, Industry, and Government Alliances (UIGA) seeks opportunities for collaborative research and development alliances among ORAU's members, private industry, and major federal facilities. Current alliances include the Southern Association for High Energy Research, the Bioelectromagnetics Research Consortium, High Performance Computing, Bioprocessing, Pan American Association for Physics, Materials Science Forum, and international initiatives in support of the New Independent States in Central and Eastern Europe. Other UIGA activities include the sponsorship of conferences and workshops, the Visiting Scholars program, and the Junior Faculty Enhancement Awards. A copy of Especially for Members, which details UIGA's programs, is available from the contacts below.

For more information about ORAU and its programs, contact Dr. A. Louis Medin, ORAU Council member, at (407) 658-5000; or contact Beth Hutson, ORAU Corporate Secretary, at (615)576-3306.

Photo Credit: Earl Brown
COURSE DESCRIPTIONS

CLASSIFICATION OF COURSES
The University course numbering system is as follows:

- **1000-2999** are freshman and sophomore level courses and are designed primarily for these students.
- **3000-4999** are junior- and senior-level courses and are designed primarily for these and other advanced students. When approved for inclusion in an individual program of graduate study by a supervisory committee approved by the Office of Graduate Studies, selected 4000-4999 courses may serve the needs of individual graduate students.
- **5000-5999** are beginning graduate and advanced undergraduate level courses - open to graduate students and those seniors who receive approval of the appropriate Dean(s).
- **6000-6999** are beginning and professional level courses open only to graduate students and do not apply toward a baccalaureate degree. (See Graduate Catalog)

FLORIDA’S STATEWIDE COURSE NUMBERING SYSTEM
Courses in this catalog are identified by prefixes and numbers that were assigned by Florida’s Statewide Course Numbering System. This common numbering system is used by all public postsecondary institutions in Florida and by two participating private institutions. The major purpose of this system is to facilitate the transfer of courses between participating institutions.

Each participating institution controls the title, credit, and content of its own courses and assigns the first digit of the course number to indicate the level at which students normally take the course. Course prefixes and the last three digits of the course numbers are assigned by members of faculty discipline committees appointed for that purpose by the Florida Department of Education in Tallahassee. Individuals nominated to serve on these committees are selected to maintain a representative balance as to type of institution and discipline field or specialization.

The course prefix and each digit in the course number have meaning in the Statewide Course Numbering System (SCNS). The list of course prefixes and numbers, along with their generic titles, is referred to as the “SCNS taxonomy.” Descriptions of the content of courses are referred to as “course equivalency profiles.”

Example of Course Identifier

<table>
<thead>
<tr>
<th>Prefix</th>
<th>Level Code</th>
<th>Century Digit</th>
<th>Decade Digit</th>
<th>Unit Digit</th>
<th>Lab Code</th>
</tr>
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<tbody>
<tr>
<td>SYG</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>No laboratory</td>
</tr>
<tr>
<td>Sociology, General</td>
<td>Freshman level at this institution</td>
<td>Survey Course</td>
<td>Social Problems</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>component in this course</td>
</tr>
</tbody>
</table>

GENERAL RULE FOR COURSE EQUIVALENCIES
Equivalent courses at different institutions are identified by the same prefixes and same last three digits of the course number and are guaranteed to be transferable between the participating institutions that offer the course, with a few exceptions (Exceptions are listed below.)

For example, a survey course in social problems is offered by 31 different postsecondary institutions. Each institution uses “SYG 010” to identify its social problems course. The level code is the first digit and represents the year in which the students normally take this course at a specific institution. In the SCNS taxonomy, "SYG" means "Sociology, General," the century digit "0" represents "Entry-Level General Sociology," the decade digit "1" represents "Survey Course," and the unit digit "0" represents "Social Problems."

In science and other areas, a "C" or "L" after the course number is known as a lab indicator. The "C" represents a combined lecture and laboratory course that meets in the same place at
the same time. The "L" represents a laboratory course or the laboratory part of a course, having the same prefix and course number without a lab indicator, which meets at a different time or place.

Transfer of any successfully completed course from one participating regionally accredited postsecondary institution to another is guaranteed in cases where the course to be transferred is offered by the receiving institution and is identified by the same prefix and last three digits at both institutions. For example, SYG 1010 is offered at a community college. The same course is offered at a state university as SYG 2010. A student who has successfully completed SYG 1010 at the community college is guaranteed to receive transfer credit for SYG 2010 at the state university if the student transfers. The student cannot be required to take SYG 2010 again since SYG 1010 is equivalent to SYG 2010. Transfer credit must be awarded for successfully completed equivalent courses and used by the receiving institution to determine satisfaction of requirements by transfer students on the same basis as credit awarded to native students. It is the prerogative of the receiving institution, however, to offer credit for courses successfully completed which have not been designated as equivalent.

Sometimes, as in Chemistry, a sequence of one or more courses must be completed at the same institution in order for the courses to be transferable to another institution, even if the course prefix and numbers are the same. This information is contained in the individual SCNS course equivalency profiles for each course in the sequence.

THE COURSE PREFIX

The course prefix is a three-letter designator for a major division of an academic discipline, subject matter area, or sub-category of knowledge. The prefix is not intended to identify the department in which a course is offered. Rather, the content of a course determines the assigned prefix used to identify the course.

AUTHORITY FOR ACCEPTANCE OF EQUIVALENT COURSES

State Board of Education Rule 6A-10.024(17), Florida Administrative Code, reads:

When a student transfers among regionally accredited postsecondary institutions that participate in the common course designation and numbering system, the receiving institution shall award credit for courses satisfactorily completed at the previous participating institutions when the courses are judged by the appropriate common course designation and numbering system faculty task forces to be equivalent to courses offered at the receiving institution and are entered in the course numbering system. Credit so awarded can be used by transfer students to satisfy requirements in these institutions on the same basis as native students.

EXCEPTIONS TO THE GENERAL RULE FOR EQUIVALENCY

The following courses are exceptions to the general rule for course equivalencies and may not be transferable. Transferability is at the discretion of the receiving institution:

A. Courses in the _900-_999 series (e.g., ART 2905)
B. Internships, practica, clinical experiences, and study abroad courses
C. Performance or studio courses in Art, Dance, Theatre, and Music
D. Skills courses in Criminal Justice
E. Graduate courses

College preparatory and vocational preparatory courses may not be used to meet degree requirements and are not transferable.

Questions about the Statewide Course Numbering System and appeals regarding course credit transfer decisions should be directed to Dr. David R. Dees in Enrollment and Academic Services, AD 210, Phone (407) 823-2691 or the Florida Department of Education, Office of Postsecondary Education Coordination, 1101 Florida Education Center, Tallahassee, Florida 32399-0400. Special reports and technical information may be requested by calling (904) 488-6402 or Suncom 278-6402.

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<td>SYG</td>
<td>Sociology, General</td>
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</table>
SYO Sociology - Social Organizations
SYP Sociology - Social Processes
TAX Taxation
THE Theatre
TPA Theatre Production & Administration
TPP Theatre Performance & Performance Training
TTE Transportation & Traffic Engineering
URP Urban and Regional Planning
VIC Visual Communication
ZOO Zoology

COURSES NUMBERED 0-999
Depending upon previous background and test scores earned, individual students may be required to complete more than the minimum number of credits required for graduation in their respective programs. Courses numbered less than 1000 (Statewide Common Course Numbers) are subcollegiate level and may not be counted in meeting degree credit hour requirements for graduation.

SPECIAL COURSES
In addition to the regular courses listed in this catalog, special courses may be available. Consult your academic advisor for details.

Directed Independent Studies 3905 4906
Directed Independent Research 4912
Special Topics/Seminars 3930 4932
*Internships, Practicums, Clinical Practice 3940 4941
Cooperative Education (COE)\(^1\) 1949, 2949 3949, 4949
Honors Undergraduate Thesis 3970 4970

\(^1\)These courses may be assigned variable credit. Some may be repeated upon approval.
\(^2\)Enrollment is limited to those students who are admitted into the co-op program.

PR: PREREQUISITE
A course in which credit must be earned prior to enrollment in the listed course.

CR: COREQUISITE
A course which must be taken concurrently with or prior to the listed course.

CI: CONSENT OF THE INSTRUCTOR

HOURS CODE
Each course listed is followed by a code which shows hours of credit and contact hours.

Example: ECI 5215C Hydraulic Engineering EN 3(2,3)
ECI 5215C is offered by the College of Engineering (EN), carries 3 hours of credit, but requires 5 contact hours which consist of 2 hours in class and 3 hours laboratory or field work.

AVAILABILITY OF COURSES
The University does not offer all of the courses listed in the catalog each year. The Schedule of Classes should be consulted for those courses offered each semester. Please Note: At the time the catalog went to press, the Statewide Course Numbering System was still in the process of renumbering courses as a result of Senate Bill (SB)
Some courses listed in this catalog may have changed. The appropriate academic department should be consulted.

**ALPHABETICAL LISTING OF COURSES BY PREFIX**

**ACG 2021**

**ACG 2023**
Principles of Accounting I and II: PR: Junior standing and MAC 1104 or equivalent. Same as 2021, 2071. Credits may not be earned in both ACG 2023 and the ACG 2021, 2071 sequence.

**ACG 2071**
Principles of Managerial Accounting: PR: ACG 2021 and MAC 1104 or equivalent. The purpose of this class is to thoroughly familiarize the student with the various uses of accounting information for planning and control.

**ACG 3101**

**ACG 3111**
Intermediate Financial Accounting II: PR: ACG 3101 with a grade of "C" or better. Accounting theory and practice for current and long-term liabilities, stockholders' equity earning per share, investments, revenue recognition, and selected current topics.

**ACG 3301**
Management Accounting: PR: C.L. and Junior standing. To thoroughly familiarize the student with the various uses of accounting information for planning and control.

**ACG 3361**
Cost Accounting I: PR: Junior standing, MAC 1104, ECO 2013, and ECO 2023, and ACG 2071 with a grade of "C" in ACG 2071, completion of or concurrent enrollment in ACG 3101. Cost concepts, cost of goods manufactured, job order costing, process costing, standard costing, relevant cost analysis, and overhead/joint cost allocations.

**ACG 3501**
Financial Accounting for Governmental and Nonprofit Organizations: PR: ACG 3101 with a grade of "C" or better, or C.L. Accounting for governments and other nonprofit organizations, with emphasis on financial reporting issues and problems.

**ACG 4203**
Advanced Accounting: PR: Intermediate Financial Accounting II with a grade of "C" or better. Accounting for business combinations and the preparation of consolidated financial statements. Accounting issues related to foreign operations. Also includes a study of current reporting topics.

**ACG 4401**
Accounting Information Systems: PR: ACG 3101 and CGS 3000, with a grade of "C" or better. An introduction to manual and computer-based accounting information systems.

**ACG 4651**
Auditing: PR: ACG 3111 and ACG 4401 with a grade of "C" or better. The standards, practices, and procedures followed in the audit function.

**ACG 5005**
Financial and Managerial Accounting Concepts: PR: Acceptance into the graduate program. (Not open to Accounting majors.) The conceptual background for understanding financial statements and management accounting reports.

**ACG 5206**

**ACG 5346**
Cost Accounting II: PR: Acceptance for graduate study. ACG 3361, ACG 3142, FIN 3403, ECO 3411. Overhead allocation, capital budgeting and analysis, EOQ analysis, decentralization, and quantitative decision analysis.

**ACG 5506**
Accounting for Governmental and Non-business Organizations: PR: ACG 3501, ACG 3142 and acceptance for graduate study. Study of problems and methods of applying managerial accounting concepts in a nonprofit environment.
ACG 5625  BA 3(3,0)
Auditing and EDP: PR: Acceptance for graduate study and ACG 4401, ACG 3142, ACG 4651. An examination of auditing procedures followed when a company uses a computer to process financial records.

ACG 5636  BA 3(3,0)
Advanced Auditing Topics: PR: Acceptance for graduate study and ACG 4651, STA 3023. Special topics relative to the standards, practices, and procedures followed in the audit function. Includes statistical sampling, advanced computer systems, advanced applications, and reporting problems.

ACG 5675  BA 3(3,0)
Operational Auditing: PR: Acceptance for graduate study and ACG 3142, ACG 4651 and meet Graduate school admission requirements. The standards, principles, practices, and procedures followed in the internal audit function.

ADE 4382  ED 3(3,0)
Teaching Adult Learners: Effective teaching techniques including technology, distance instruction, and support systems appropriate to the special needs of adult learners.

ADV 4000  AS 3(3,0)
Principles of Advertising: Overview of the field of advertising; purposes, techniques, the role of agencies, advertisers and the media.

ADV 4003  AS 3(3,0)
Advertising Layout and Preparation: Majors only. PR: ADV 4000 or C.I. Advertising design and layout for print media; reproduction methods and requirements; art background not required.

ADV 4101  AS 3(3,0)
Advertising Copy and Campaigns: Majors only. PR: ADV 4000 or C.I. and Grammar Proficiency Exam. Creative copywriting for print, RTV, and other media. Campaign strategies and formulation.

ADV 4103  AS 3(3,0)
Radio-Television Advertising: Majors only. PR: ADV 4000 or C.I. Radio and television advertising sales, including interpretation of rate structures, program audiences, and creative approaches to sponsor needs.

AFR 1101  EN 1(1,2)

AFR 1111  EN 1(1,2)

AFR 2130  EN 1(1,2)
The Development of Air Power I: A study of the development of air power from experiments by 18th-century balloonists to the achievement of combat air power capabilities during World War II.

AFR 2131  EN 1(1,2)
The Development of Air Power II: A study of the development of aerospace capabilities since World War II; highlighting technological advancements and the role of aerospace power in the contemporary world.

AFR 3220  EN 3(3,2)
Air Force Leadership and Management I: An introductory study of Air Force management fundamentals, communications skills, and basic leadership styles.

AFR 3230  EN 3(3,2)
Air Force Evaluation and Management II: A concluding study of Air Force management fundamentals, including performance evaluation skills.

AFR 4201  EN 3(3,2)

AFR 4210  EN 3(3,2)

AMH 2010  AS 3(3,0)

AMH 2020  AS 3(3,0)

AMH 2020H  AS 3(3,0)
Honors U.S. History: 1877-Present: PR: AMH 2010 or C.I. Same as AMH 2020 with honors-level content.
American Economic History: PR: AMH 2010 and 2020 or C.I. An introduction to the economic development of the U.S., with emphasis on agriculture, labor, industrialization, transportation, and banking.

History of the South to 1865: PR: AMH 2010 or 2020 or C.I. Development of the southern colonies, beginning sectionalism, the cotton economy, and slavery, Calhoun's constitutional theories, secession, Civil War and its aftermath.

History of the South Since 1865: PR: AMH 2010 and 2020 or C.I. Reconstruction, the "solid South" and the racial dilemma, progressivism for whites only, southern literature, 20th-century economic, political and social changes, and the new Reconstruction.

History of Florida to 1845: PR: AMH 2010 and 2020 or C.I.

History of the Frontier: Eastern America: PR: AMH 2010 and 2020 or C.I. The progression of the westward movement from the colonial settlements to the Mississippi, considered as an interpretive approach to American history.

History of the Frontier: Western America: PR: AMH 2010 and 2020 or C.I. The development of the trans-Mississippi West and its impact upon American history.

Military History: A survey of US military history from the European background of the colonial period through the contemporary military experience.

Women in American History: Women in colonial America, "republican" motherhood, "separate spheres," suffrage battle, entry into paid labor force, new educational and professional opportunities, changing family pattern, "new" feminism.

Black American History: PR: AMH 2010 and 2020 or C.I. History of Negroes from their African heritage through American slavery to freedom and their role in the 20th-century America.

History of the Hispanic Minorities in the U.S.: Course begins with 16th century through the modern period. Special emphasis on Chicanos, Puerto Ricans, and Cubans.

Sport in America: History of sport from colonial times to present. Emphasis on social and economic development, intercollegiate and professional sport, and changing attitudes toward work, sport, and play.

Canadian History: Canada since Colonial times and the present, but with emphasis on the period since the British North America Act, 1867.

Colonial America, 1607-1763: PR: AMH 2010 and 2020 or C.I. The voyages of discovery, the origins of the thirteen colonies, and their political, economic, social, and religious life in the 17th and 18th centuries.

The Age of the American Revolution, 1763-1789: PR: AMH 2010 and 2020 or C.I. The American Revolution - its origins, course, and impact upon American society - the Articles of Confederation, the Philadelphia Convention and its work.

Jeffersonian America: PR: AMH 2010 and 2020 or C.I. The Confederation era, the Federalists, Jeffersonian Democracy, and the War of 1812.

Jacksonian America: PR: AMH 2010 and 2020 or C.I. The risk of American nationalism, Jacksonian Democracy, the Mexican War, and sectional conflict.

Civil War and Reconstruction: PR: AMH 2010 and 2020 or C.I. Reconstruction, and impact of industrialism.

The Gilded Age and Progressivism: PR: AMH 2010 and 2020 or C.I. The Rise of Industrialized and Urbanized America, The emergence of the New South and the New West, the Populist Movement, overseas expansion, Progressivism.
AML 3051: American Literature II: PR: ENC 1102. Major American writers from Twain to present.


AML 4261: Literature of the South: PR: ENC 1102 or C.I. Development of Southern literature from its beginnings in the "Old South" through the post-Civil War and the Southern-Renaissance to the present. Emphasizes reading from Poe, Ransom, Tate, Faulkner, Porter, Warren, O'Connor, Percy, and Styron.

AML 4265: Florida Writers: PR: ENC 1102. This course will examine writers who have lived in and written about Florida, such as Hemingway, Rawlings, Hurston, and Stevens.


AML 5156: Modern American Poetry: Study of trends, modes, major figures (Eliot, Pound, H.D. Lawrence, Stevens, Hart, Crane, Moore, W.C. Williams, etc.) within the Modernist movement in American poetry.


ANT 2003H: General Anthropology Honors: Extensive honors work in the field of anthropology. Expectations, requirements, and standards are greater than for standard General Anthropology.

ANT 3122: Archaeological Method and Theory: A survey of archaeological field and laboratory techniques, including the interpretation of written archaeological reports.

ANT 3142: Old World Prehistory: A comparative study of social evolution in Africa, Europe, and Asia from the earliest humans to the beginnings of recorded history.

ANT 3145: Archaeology of Complex Societies: Theoretical perspectives on ancient hierarchies of power.

ANT 3163: Mesoamerican Archaeology: An introduction to the prehistory of Mexico, Guatemala and upper Central America from earliest times through the Spanish conquest.

ANT 3211: Archaeology and the Rise of Human Culture: The evolution of human society from foraging and hunting groups to the earliest cities and states.

ANT 3241: Magic, Ritual, and Belief: Patterns in religious behavior in various societies, with primary emphasis on myth, rite, taboo, and festival social phenomena.


ANT 3271: Law and Culture: An introduction to law as an organizing force in society, including a study of primitive forms of law and social control.

ANT 3302: Sex, Gender and Culture: The traditional and changing roles of women and men viewed in a cross-cultural perspective.


ANT 3312: Ethnology of North American Indians: A survey of the aboriginal cultures of North America, with emphasis on the pre-contact cultural condition.

ANT 3328
Maya Archaeology: An examination of the Prehistoric Maya culture focusing on both the archaeology and current issues in the field.

ANT 3332
People and Cultures of Latin America: An overview of the history and society of the peoples of Latin America, emphasizing patterns of subsistence and social organization.

ANT 3360
Peoples of the Far East: A survey of the peoples of China, Japan, and Korea from the anthropological perspective.

ANT 3363
Anthropology of Japan: An examination of Japanese culture and its contemporary behavioral and organizational patterns by drawing upon archaeology, cultural history, linguistics, cultural anthropology, and social organization.

ANT 3410
Cultural Anthropology (Anthropology II): An introduction to human diversity as exemplified among various cultures and ethnic groups.

ANT 3422

ANT 3511
The Human Species: Human biological variation in an evolutionary perspective.

ANT 3541
Biobehavioral Anthropology: An introduction to the study of human behavior in terms of mutual interaction between human biology and cultural environments.

ANT 3610
Language and Culture: PR: Sophomore standing. The study of language in a non-western setting; language and behavior; language and perception.

ANT 4084
History of Anthropological Thought: The exploration of the intellectual foundations of modern anthropology.

ANT 4124
Advanced Archaeological Fieldwork: PR: Students admitted only with permission of instructor. Supervised archaeological fieldwork.

ANT 4180
Seminar in Laboratory Analysis: The processing of archaeological finds from excavation through publication.

APA 3471
Accounting for Engineers: General Accounting principles and practice, cost accounting, budgeting, and control techniques. Not usable for BSBA degree credit.

APB 3600
Introduction to Pharmacology: Review of terminology and regulations. Study of drug types and usage.

APB 4651
Medical Pharmacology I: Drugs in pulmonary diseases; effects on nervous system, and neuroeffectors, depressants & stimulants; influence on metabolism and endocrines. (MDRV) Bronchodilators, mycolytics, etc.

APB 4652
Medical Pharmacology II: PR: APB 4651 or C.I. Drugs used in cardiovascular disorders. Includes inotropic, chronotropic agents, beta blocker drugs, calcium channel antagonists.

ARA 1120
Elementary Arabic Language and Civilization I: Designed to initiate the student to Arabic language skills. Open only to students with no previous experience in the language.

ARA 1121
Elementary Arabic Language and Civilization II: PR: ARA 1120 or C.I. Continuation of ARA 1120.

ARA 2200
Intermediate Arabic Language and Civilization I: PR: ARA 1121 or C.I. Development of language skills and cultural knowledge at the intermediate level.

ARE 3550
Introductory to Art Therapy: A survey of the literature, theories and practices of art therapy.

ARE 3554
Art Therapy Methods: This course presents methodologies used by the Art Therapists and demonstrates how Art Therapy is put into practice.
ARE 3662
Community Arts I: A survey of the basic theoretical issues related to community arts programming.

ARE 3663
Community Arts II: A survey of the basic methodologies for applying the theoretical issues to community arts programming taught in Community Arts I.

ARE 3944
Community Arts Practicum: A supervised experience for students to facilitate art programming in a variety of community settings.

ARE 4262
Methods in Art Administration: PR: ARH 3820. Theories and methodologies for designing, implementing and administering art programs for a variety of populations.

ARE 4313
Art in the Elementary School: Basic principles, purposes, scope and sequence: organization for instruction; evaluation of activities; selected art experiences.

ARE 4351
Teaching Art in the Elementary School: PR: EDF 4214 and EDG 4321. Transition from university art studio practices to public school teaching of art. Organizing, designing and analyzing art experiences, activities and classroom environments for the elementary school classroom.

ARE 4352
Teaching Art in the Secondary School: PR: ARE 4143, EDF 4214, and EDG 4321. Transition from university art studio practices to High School Teaching of art. Organizing, designing and analyzing art experiences and activities appropriate for junior high and high school children. Examination of teaching methodology relative to the high school and junior high school settings.

ARE 4356
Teaching Art Appreciation & Criticism in the Classroom: PR: ARH 2050 and ARH 2051. An examination of art appreciation programs and concepts toward planning curriculum for the study of art history, popular art, art criticism, and aesthetics for specific educational settings.

ARE 4945
Community Arts Internship: An on-site in-depth experience for community arts majors with a concentration in administration, education, or therapeutic experience.

ARE 5251
Art for Exceptionalities: Concepts, principles, and methods of integrating art processes into the education of the physically, emotionally, and mentally handicapped.

ARE 5255
Arts in Recreation: Art activities and experiences appropriate for use in playground, leisure services, occupational orientation and other recreational areas.

ARE 5648
Contemporary Visual Arts Education: PR: C.I. Continued study of current programs and innovations in public school Visual Arts Programs.

ARH 2050
The History of Art I: Painting, sculpture and architecture from the Prehistoric Era through the Renaissance period.

ARH 2051
The History of Art II: Painting, sculpture and architecture from the Baroque through the 20th century.

ARH 2051H
Honors History of Art II: Same as ARH 2051 with honors-level content.

ARH 3060

ARH 3456
Art After 1945: A seminar for upper-level art students to examine historically the art of Post WW II

ARH 3520
African Art: Teach the continuatives between African, Afro-Caribbean and Afro-American Arts.

ARH 3530
Asian Art: History of visual arts of China, Japan, India, and other Eastern cultures.

ARH 3683
Southern Folk Arts: History of Folk Architecture, Ceramics, Painting, Sculpture, Textiles and Toys in three main Southern ethnic cultures: EuroAmerican, Afro-American, and American Indian.

ARH 3710
History of Photography I: History of still photography from its earliest inception to 1900. The content of this course is designed for art majors.
History of Photography

II: History of still photography from the early 20th century to the present. The content of this course is designed for art majors.

American Art: PR: ARH 2050 and ARH 2051 or C.I. Surveys American Art to 1900. Leading artists are identified and representative examples of their work are discussed within the context of major themes, patterns, sources.

Happenings Art: To study the aesthetic and social significance of "Total Art" in its attempt to break down the customary distinctions between life and art.

Visual Arts Administration: Vitas: grant applications; Personnel; copyright laws; museum practices, etc.

Greek & Roman Art: PR: ARH 2050 or HUM 3431 or HUM 3432 and ENC 1102 or C.I. A study of the art and architecture of the ancient civilizations of the Mediterranean, comprising Greece, Etruria, and Rome.

Early Italian Renaissance Art: PR: ARH 2050 and ARH 2051 or C.I. A survey of Italian Art and Architecture from 1300 to 1500.

Later Italian Renaissance Art: PR: ARH 2050 and ARH 2051 or C.I. A survey of art in Italy from the High Renaissance through Mannerism.

Baroque Art: PR: ARH 2050 and ARH 2051 or C.I. A study of European Art in the 17th and 18th centuries.

19th Century Art: A survey of the trends and developments in art during the 19th century, including the art of America and of Western Europe.

20th Century Art: PR: ARH 2050 and ARH 2051 or C.I. A survey of the art from Fauvism, Futurism, Cubism to the art of the present.

Women and Art in the 20th Century America: A course on women artists, feminist aesthetics, and women's artistic cultures, focusing on 20th century America.

Art of India: Art and architecture of India from prehistoric times through the Gupta, Rajput, and Muslim periods.

Meso American Art: A survey of the art of Mexico and Central America, from the Pre-Colombia, through the Spanish Colonial, to the 20th century.

Mexican Art - Fieldwork: A field trip in connection with ARH 4655.


Women in Art: PR: ARH 2050 and ARH 2051 or C.I. A survey of women artists from ancient times to the present as well as a study of the role Aesthetics and Ideology have played in determining representations of women in art.

Artistic World Views: PR: Post-Baccalaureate. status, 9 hours of art courses, or C.I. Art from individuals and cultural perspectives of varying ethnic, religious, occupational, regional, and generational groups.

Contemporary Women Artists: PR: 6 credits of art courses or C.I. An in-depth study on contemporary women artists from a feminist perspective.

Critical Perspectives on Women Artists: The cultural forces influencing women artists, and how those artists have been constrained or misrepresented by the language of art or by art history.
ARH 5933  

ART 2201C  
Design Fundamentals I: Materials, processes, form. Emphasis on two-dimensional design problems, including problems in black and white and basic color theory.

ART 2203C  
Design Fundamentals II: Continuation of color theory and basic three-dimensional design using the various sculptural media.

ART 2300C  
Drawing Fundamentals I: Drawing as a means of formal organization. Introduction to problems in drawing methods and media. Emphasis on description techniques.

ART 2301C  
Drawing Fundamentals II: Continuation of ART 2300C.

ART 2600C  
Introduction to Computer Graphics: The principles underlying the generation and display of graphical pictures by computer. Topics include graphical software packages and graphics systems.

ART 3110C  
Ceramics: Basic concepts of ceramic design, experience in processes of forming, decorating, glazing, and firing pottery.

ART 3133C  
Fibers & Fabrics: Design and production training in surface design, floor loom weaving and fiber sculpture.

ART 3204C  

ART 3230C  

ART 3232C  
Graphic Design II: PR: ART 3239C or C.I. Methods, materials, and processes related to perceptual studies in graphic design.

ART 3239C  

ART 3253C  
Illustration: PR: ART 2201, ART 2203, ART 2300 or C.I. Pictorial and representational illustration using various media and techniques.

ART 3281C  
Type & Design: A survey of type, calligraphy and letter forms and their appropriate use as subject matter for graphic design and publication.

ART 3330C  
Intermediate Drawing I: PR: Six semester hours of Drawing Fundamentals or C.I. Intermediate problems in drawing, with emphasis on the human form.

ART 3331C  
Intermediate Drawing II: PR: C.I. Continuation of Intermediate Drawing I.

ART 3400C  
Printmaking: PR: ART 2201C, 2202C, and three semester hours of Drawing Fundamentals or C.I.

ART 3510C  
Painting: PR: Three semester hours in Design Fundamentals and three semester hours in Drawing Fundamentals or C.I. Concentration of basic techniques and aesthetic factors in painting.

ART 3610C  

ART 3701C  
Sculpture: PR: Six semester hours in Design Fundamentals, to include three semester hours in three-dimensional work, or C.I.

ART 4111C  
Advanced Ceramics: PR: ART 3110C. May be repeated for credit.
ART 4130C AS 3(2,3) Fibers, Fabrics, Textiles and Synthetics: Textile design and production, including non-loom weaving processes. May be repeated for credit.

ART 4138C AS 3(3,2) Advanced Fiber & Fabrics: Textile design and production, including non-loom weaving processes. May be repeated for credit.


ART 4235C AS 3(2,3) Advanced Graphic Design: PR: ART 3239C, ART 3232C, or C.I. Practical studio problems, with emphasis on organization of visual design elements.

ART 4237C AS 3(2,3) Special Problems in Graphic Design: PR: ART 4235C or C.I. Advanced problems in visual design and reproduction. May be repeated for credit.

ART 4320C AS 3(2,2) Advanced Drawing: PR: ART 3331C. May be repeated for credit.

ART 4402C AS 3(2,3) Advanced Printmaking: PR: ART 3400C. May be repeated for credit.


ART 4530C AS 3(2,2) Advanced Painting: PR: ART 3510C. May be repeated for credit.

ART 4703C AS 3(2,3) Advanced Sculpture: PR: ART 3701C. May be repeated for credit.

ART 5109C AS 3(3,0) Multi-Cultural Crafts Design: The content of this course will include an appreciation for and the production of Western and Non-Western art forms.

ASH 3222 AS 3(3,0) Islam and Its Empires: PR: Junior standing or C.I. History of the Middle East and North Africa from the birth of Islam to the 16th century.

ASH 3223 AS 3(3,0) The Modern Middle East: PR: Junior standing or C.I. History of the Middle East and North Africa from the 16th century to the present.

ASH 4404 AS 3(3,0) China in 19th and 20th Centuries: PR: EUH 2000 and 2001 or C.I. The Mongols in China; coming of the Europeans; social structure; Communist movement; Japanese aggression.

ASH 4442 AS 3(3,0) Modern Japan, 19th and 20th Centuries: PR: EUH 2000 and 2001 or C.I. A survey of the Tokugawa Shogunate; Western contact in the 19th century; World War I; Japanese militarism; World War II; and U.S. occupation.

AST 2002 AS 3(3,0) Astronomy: Descriptive survey of solar system, galaxies and universe; physical properties of stars, H-R diagram, stellar evolution, black holes, neutron stars.

AVM 4510 BA 3(3,0) Airline Management: PR: Junior standing. The trends, operation, practices, and procedures of the airline industry. Special emphasis on ticketing, scheduling, marketing, and terminal management.


BCH 4054 AS 3(3,0) Biochemistry II: PR: BCH 4053. Continuation of BCH 4053.

BCH 4103L AS 2(0,6) Biochemical Methods: PR: BCH 4053. A laboratory course stressing the application of the chemical arts to the separation, identification, and quantification of materials of biological significance.

BES 3512 AS 2(2,0) Behavioral Weight Control: Application of behavioral techniques to produce weight loss. Diet, exercise, and behavioral self-regulation principles are used in an individual student case study approach.

BOT 1000L AS 1(0,2) Plant Science Lab: CR: BOT 1000. The laboratory to accompany BOT 1000.

BOT 1000 AS 3(3,0) Plant Science: Plant life related to biological principles and the physical and cultural impact of plants on human individuals and civilization. Designed for non-majors.
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<tr>
<th>Course Code</th>
<th>Title</th>
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<tr>
<td>BOT 3154C</td>
<td>Local Flora: PR: BOT 2011C or C.I. Recognition and identification of Florida higher plants, especially those common to central Florida, stressing environmental and ethnobotanical significance. Weekend field trips may be required.</td>
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<td>BOT 3800</td>
<td>Ethnobotany: PR: C.I. Historical and modern uses of plants economically important in various cultures. Designed for majors and non-majors.</td>
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<td>BOT 3820C</td>
<td>Plants and the Urban Environment: PR: C.I. The selection, placement, propagation and care of ornamental plants in residential and industrial areas. Designed for majors and non-majors.</td>
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<td>BOT 4223C</td>
<td>Plant Anatomy: PR: BSC 2010C and BSC 2011C. A study of development, structure and function of the principal organs and tissue of vascular plants.</td>
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<td>BOT 4303C</td>
<td>Plant Kingdom: PR: BSC 2010C and BSC 2011C. A survey of the plant kingdom utilizing comparative morphology, structure and functions to demonstrate relationships among extant and extinct forms.</td>
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<td>BOT 4503C</td>
<td>Plant Physiology: PR: PCB 3023 or C.I. A Study of mechanisms used by plants to cope with the environment.</td>
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<tr>
<td>BOT 4623C</td>
<td>Plant Geography and Ecology: PR: 8 hours Botany or C.I. The major climatic plant formations of the world, historical and contemporary plant geography, and ecology.</td>
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<tr>
<td>BOT 4686C</td>
<td>Conservation and Management of Native Plants: PR: BOT 4713C, PCB 3043 and/or BOT 4503C or C.I. Identification, conservation, propagation and management of Florida rare, endangered, indicator or reclamation species.</td>
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<tr>
<td>BOT 4713C</td>
<td>Plant Taxonomy: PR: BSC 2011C. An introduction to systematic classification and identification of vascular plants, with emphasis on the flora of peninsular Florida.</td>
<td></td>
</tr>
<tr>
<td>BOT 5495C</td>
<td>Bryology: PR: BOT 4303C or C.I. A lecture-laboratory survey course on the diversity and classification of mosses, liverworts, and hornworts, with special emphasis on those found in Florida.</td>
<td></td>
</tr>
<tr>
<td>BOT 5705C</td>
<td>Plant Biosystematics: PR: Graduate standing or C.I. Evolutionary processes among plant taxa and populations utilizing cytology, morphology, biochemistry, breeding systems and co-evolution.</td>
<td></td>
</tr>
<tr>
<td>BSC 1020</td>
<td>Biological Principles: A study of various biological factors which affect the health and survival of man in modern society. Designed for non-majors.</td>
<td></td>
</tr>
<tr>
<td>BSC 1020L</td>
<td>Biological Principles Laboratory: CR: BSC 1020. The laboratory to accompany BSC 1020.</td>
<td></td>
</tr>
<tr>
<td>BSC 1030</td>
<td>Biology and Environment: Biological implications of the interaction among human society, population, and technology in relation to the environment and natural systems. Designed for non-majors.</td>
<td></td>
</tr>
<tr>
<td>BSC 1030L</td>
<td>Biology and Environment Laboratory: CR: BSC 1030. The laboratory to accompany BSC 1030 C.</td>
<td></td>
</tr>
<tr>
<td>BSC 2010C</td>
<td>General Biology: PR: High school biology or C.I. Basic principles, unifying concepts, and facts of modern biology. Introduction to quantitative biological experimentation. Open only to students whose major requires this specific course.</td>
<td></td>
</tr>
<tr>
<td>BSC 2010H</td>
<td>General Biology Honors: PR: Eligibility for Honors Program. Basic principles and unifying concepts of modern biology. Introduction to quantitative experimentation using intensive, open-ended labs.</td>
<td></td>
</tr>
<tr>
<td>BSC 2011C</td>
<td>Biological Diversity: PR: BSC 2010C. Introduction to botany and zoology. Structure, function, and representative groups of plants and animals. Open only to students whose major requires this specific course.</td>
<td></td>
</tr>
<tr>
<td>BSC 3404C</td>
<td>Quantitative Biological Methods: PR: BSC 2010, MCB 3013, CHM 2046. A laboratory course which presents modern methods and instrumentation used in quantitative biological experimentation.</td>
<td></td>
</tr>
</tbody>
</table>
BSC 4103
History of Biology: PR: BSC 2010C, BSC 2011C and 8 hours in biology or C.I. People and events involved in the development of major biological concepts and disciplines. Suitable for majors and non-majors.

BSC 4401L
Biology Laboratory Techniques: PR: PCB 3043, CHM 3210, or C.I.
Course will provide individual and small group instruction in current laboratory techniques used in Biology that are beyond the scope of typical Biology laboratories. Literature searches and hands-on practice of techniques will be stressed. May be repeated one time for credit.

BSC 5034

Trends in Marine Biology: PR: C.I. This course is presented at Sea World and each term will focus on a single topic relating to marine biology. The course requires weekend trips. May be repeated for credit.

BSC 5939
Biology for AP Teachers: Participants will perform and evaluate the 12 required labs, analyze the design and grading of the Exam, and develop a representative program.

BSE 4410
Course Construction in Business Education: PR: EVT 3365 or C.I. An overview and examination of business curriculum and methodology integrated into the vocational frameworks. Planning and preparation of materials, managing the laboratory and involvement in vocational student organizations.

BUL 3130
Legal and Ethical Environment of Business: PR: Junior standing. Analysis of the law as a dynamic social and political institution in the business environment, including ethical consideration. (Not open to Accounting majors).

BUL 3320
Business Law I: PR: Junior standing. Introduction to law; a social and political institution in the business environment. Analysis of statutory and common law principles involved in the formation, operation, and termination of recognized business organizations. Analysis of the effects of government regulation on business activity, including anti-trust and securities regulation.

BUL 3321
Business Law II: PR: BUL 3320. Coverage of the Uniform Commercial Code; the law of commercial transactions, including sales, commercial paper, secured transactions and suretyship, contracts, wills and trusts, and property law.

BUL 5125
Legal and Social Environment of Business: PR: Admission to graduate program. Analysis of the legal and ethical environment of business, the effects of legislation and regulation on business activity, and the role of law and ethics in the decision-making process.

CAP 4020
Digital Media: PR: Senior standing or C.I.
Information structures, algorithms and interactive tools for creation, compression, storage, indexing and transmission of multimedia (visual images, sound, tactile displays, etc.) Project-oriented.

CAP 4021
Building Virtual Worlds: PR: Senior standing or C.I. Design and construction of software for networked interactive learning environments, entertainment and communication systems. Tools for enabling dramatic, artistic and technical creativity. Project oriented.

CAP 4453
Introduction to Robot Vision: PR: COP 2501, MAC 3312, or C.I. Pin hole camera and eye, perspective and orthographic projections, the processing of edges, regions, motion, shading, texture, object; robot arm usage.

CAP 4630

CAP 5415
Computer Vision: PR: COP 3530. Image formation, binary vision, region growing and edge detection, shape representation, dynamic scene analysis, texture, stereo and range images, and knowledge representation.

CAP 5610

Computer Graphics Systems I: PR: COP 3530 or equivalent. Architecture of graphics processors; display hardware; principles of programming and display software; problems and applications of graphic systems.

Comparative Psychology: PR: PSY 2013. A study of comparative behaviors of lower animals.

Construction Engineering I: PR: EGN 3331 and CEG 4101C. Building construction, materials and types of construction, soils in construction and handbook applications in the field of construction engineering. Also form work design.

Crime in America: A survey of crime and criminality in the United States, with emphasis on crime data, its weaknesses, and types of criminal behavior.

Criminal Justice System: An examination of the components and of their interdependence in light of their traditional autonomy.

Criminal Law in Action: Basic concepts of criminal law: elements of major crimes, criminal responsibility, defenses, and parties to crime.

Prosecution and Adjudication: PR: CCJ 3020 or PLA 3013 or C.I. Examination of structures and goals of offices and prosecution and criminal trial courts, and of the processes of charging, adjudicating, and sentencing defendants.

The Corrections and Penology: PR: CCJ 3020 or C.I. Theories, structures, and methods of institutional and non-institutional processing and treatment of convicted criminals and juvenile offenders.

Community-Based Corrections: PR: CCJ 3020 and CCJ 3300 or C.I. An overview and analysis of correction interventions and treatment programs in the community.

Justice System Technology: PR: CCJ 3020 or C.I. Examination of the relevance of scientific and technological developments to justice systems and their applicability to the operations and management of the systems.

The Criminal Justice Manager: PR: CCJ 3020 or C.I. Elements of first-line supervision and executive development. Administrative leadership; its nature; methods, and traits. Recent theories and research in leadership.

Labor Relations in Criminal Justice; PR: CCJ 3020 and CCJ 3452 or C.I. Examine the role of public sector labor relations in criminal justice to include management-employee relationships, collective bargaining process, employee organizations, and federal-state laws.

Police and Society: PR: CCJ 3020. An examination of the varied roles of police in contemporary society. Emphasis is on dynamics of police/citizen interactions and the police subculture.

Justice Agency Operations: PR: CCJ 3020 and CCJ 3452 or C.I. Elements, functions, and processes essential to the continuing management of various criminal justice agencies, institutions and court systems.

Criminal Justice Ethics: Focuses on the ethical issues and problems commonly encountered in the criminal justice system (policy courts and corrections).

Delinquency Control: PR: CCJ 3020 and CCJ 3290 or C.I. Examination of programs and institutions including juvenile court process, intake services, and remedial procedures and practices.

Comparative Justice Systems: PR:CCJ 3020 and CCJ 3290 or C.I. A survey of contemporary foreign criminal justice and differences emerging from various political, cultural and legal systems.

Organized Crime: An examination of organized crime, including structures, history and activities, and of issues surrounding efforts to define and control it.
Drugs and Crime: Focuses on the problems of drugs and drug control in contemporary society. Students will examine the problems of drugs in our society as well as specific strategies used by criminal justice agencies to prevent and control illicit drug use.

Terrorism: PR: CCJ 3020 and CCJ 4105 or C.I. An examination of competing ideologies of a variety of social and political conflicts (both international and domestic) that give rise to terrorism and of the implications for the criminal justice system.

Women and Crime: This course covers women in criminal justice as offenders and prisoners, as well as crime victims and professionals working in the system.


Research Methods in Criminal Justice: Overview of the social science research methodology used in criminal justice, covers the major forms of research designs used by social science and evaluates their strengths and weaknesses.

Criminal Justice Internship: PR: C.I. Internship in municipal, county, state or federal criminal justice agency. Includes assignments in police, courts, corrections components.

The Nature of Crime: This course provides an overview of major dimensions of crime in the U.S.; epidemiology of crime, costs of crime, and typologies of crime and criminals.

Foundations of Law Enforcement: This course will examine law enforcement systems in the United States and issues that influence the police; individual, group, social, legal, economic, and political manifestations.

Foundations of Corrections: This course provides an overview of the field of corrections, including a discussion of theories of punishment and their implications for the punishment of offenders.

Research and Technology Implementation: Changing roles of social and physical sciences as related to the objective and administration of public safety agencies.

The Administration of Justice: This course provides an overview of the criminal justice system and a critical analysis of formal and informal processing of offenders by criminal justice agencies.

Justice and Safety System Manpower: Processes essentials to administration to human resources in criminal justice and public safety agencies; structure and processes for acquisition, training, and maintenance of personnel.

Issues in Justice Policy: Examination of selected issues of public policy regarding the functions and roles of criminal justice agencies vis-a-vis other government departments or agencies and public purposes.

Research Methods in Criminal Justice: An examination of the philosophy and techniques of research as applied in the Criminal Justice field.

Quantitative Methods and Computer: Provides a working knowledge of statistical techniques in criminal justice research using criminal justice databases. The student will develop interpretive ability of statistical results using SPSS.

Introduction to Computer System Architectures: PR: CGS 1060 or equivalent. System architecture, CPU organization and instruction execution, CISC and RISC architectures, memory systems, and graphics.

Introduction to Data Communications: PR: CDA 3100. I/O processing, DMA, interrupts, asynchronous and synchronous data communications, serial communication standards, modems, and protocols.

CDA 3103 AS 3(3,0)
Computer Organization: PR: COP 2500. Combinational logic, arithmetic circuits, sequential logic design, finite state machine design, software tools for logic design, and assembly language programming.

CDA 4150 AS 3(3,0)

CDA 5106 AS 3(3,0)
Advanced Computer Architecture I: PR: CDA 4150. Instruction set architectures, processor implementation, memory hierarchy, pipelining, computer arithmetic, vector processing, and I/O.

CDA 5110 AS 3(3,0)
Parallel Architecture & Algorithms: PR: COT 4210, CDA 5106. General-purpose vs. special-purpose parallel computers; arrays, message-passing; shared-memory; Taxonomy; parallelization techniques; communication synchronization and granularity; parallel data structures; automatic program restructuring.

CDA 5215 AS 3(3,0)
Architecture and Design of VLSI Systems: PR: CDA 4150 or equivalent. Overview of VLSI technology. Stick diagrams; logical design of basic subsystems; integrated system design tools; design of a VLSI computer system.

CDA 5501 AS 3(3,0)

CEG 3301 EN 3(3,0)
Engineering and Environmental Geology: PR: EGN 3310 and CHS 1440 or equivalent. Principles of physical geology, with emphasis on engineering and environmental topics. Study of land forms, geologic maps, geologic structure, weathering, groundwater, mass wasting, and earthquakes.

CEG 4101C EN 4(3,2)

CEG 4801C EN 3(2,2)
Geotechnical Engineering Design: PR: CEG 4101C. Project course on design of foundations and other soil structures using geotechnical design methodologies.

CEG 4812 EN 1(1,0)
Historical Developments in Civil Engineering: Seminar covering major historical developments in civil engineering.

CES 4100 EN 3(3,0)
Structural Analysis I: PR: EGN 3331. Topics in structural mechanics, energy methods, analysis of determinate and indeterminate structures by flexibility, stiffness and methods.

CES 4101 EN 3(3,0)
Structural Analysis II: PR: CES 4101. Special structures; introduction to matrix structural analysis, dynamic loads including wind and earthquake.

CES 4130L EN 1(0,3)
Structures Laboratory: PR: EGN 3331; CR: CES 4100. Laboratory exercises on the behavior of structures and structural materials.

CES 4605 EN 3(3,0)
Steel Structures: PR: CES 4100. Design of structural steel members and buildings; emphasis on AISC-ASD building code; introduction to AISC-LRFD building code; tension and compression members, beams, beam-columns, connections.

CES 4608C EN 3(2,2)
Steel Design: PR: CES 4605. Project course on design of steel components, connections, and frame structures using AISC specifications.

CES 4702 EN 3(3,0)
Reinforced Concrete Structures: PR: CES 4100 or C.I. Design of RC members using ACI code; beam flexure and shear; compression bender, bond and development; introduction to continuous frames.
CET 4709C
Concrete Design: PR: CES 4702. Project course on design of concrete structures using concrete and structural analysis methodologies.

CET 5143
Matrix Structural Analysis: PR: CES 4100 or equivalent. Optimization and matrix methods applied to the design of real structures.

CET 5325
Bridge Engineering: PR: CES 4605; CES 4702. Structural systems for bridges, loading, analysis by influence lines; slab and girder bridges; composite design; prestressed concrete; rating of existing bridges, specifications and economic factors.

CET 5606
Advanced Steel Structures: PR: CES 4605. Behavior and design of steel buildings; emphasis on ASD­ LRFD building code; complex connections, tension members, stability of compression members, laterally unsupported beams, frames, and beam columns.

CET 5706
Advanced Reinforced Concrete: PR: CES 4702 or C.I. Design of frames, two-way floor systems, shear walls; shear and torsion; compression field theory; inelastic analysis; wind and seismic design; introduction to prestressed concrete.

CET 3123C
Microprocessor Electronics I: PR: EET 3085C. Introduction to microprocessors. Includes machine language programming, an introduction to microprocessor-based system architecture, and binary and hexadecimal arithmetic.

CET 3144C
Applied Microprocessor Technology: PR: CET 3198C and CET 3303. DC Circuit Analysis and Microprocessor Fundamentals. Analysis and design of the components, architecture, and interfacing of a microcomputer. Specific reference to IBM compatible microcomputers and peripherals. Troubleshooting and repair are emphasized in the laboratory.

CET 3198C

CET 3223C
Digital Technology: PR: EET 3085C. Digital logic gates, memory devices, Karnaugh Maps, combinational logic, arithmetic units, registers and sequential logic.

CET 3364
Systems Applications in C: PR: CET 3198C, CET 3303, COP 3220, or knowledge of C. Use of C language in control of system processes, DOS and BIOS interrupts, and interfacing with assembly language.

CET 3383
Applied Systems Analysis I: PR: Programming II (Pascal II). Study of system analysis, design, development and implementation cycle. Includes Object Oriented Programming (OOP) to implement system programs.

CET 4131C
Microprocessor Electronics II: PR: CET 3123C. A continuation of CET 3123C, with emphasis on applications of microprocessor applications in engineering technologies.

CET 4138C
Digital Programmable Devices: PR: CET 3198C or equivalent and CI. Architecture and applications of various types of programmable logic devices: Design entry methods, e.g. HDL, schematic capture, etc. Lab exercises using PALS, PLDs, and FPGAs.

CET 4139C

CET 4188
Microcomputer Technology II: PR: CET 3303. Continuation of CET 3303. Advanced assembly language programming including macros, system subroutines, high-level language interfacing, device drivers, and operating system enhancements.

CET 4333C
Applied Computer Systems I: PR: CET 3198C and CET 3303. Microprocessor based systems design and implementation. System components; memory; input/output devices; busses, process control architecture, timing and troubleshooting.

CET 4334C
Applied Computer Systems II: PR: CET 3198C and CET 3303. Computer communication methods with emphasis on serial and parallel data communications and computer networking.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>PR</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CET 4427</td>
<td>Applied Database I</td>
<td>CET 3383.</td>
<td>EN 3(3,0)</td>
</tr>
<tr>
<td>CET 4505</td>
<td>Applied Operating Systems I</td>
<td>COP 2001.</td>
<td>EN 3(3,0)</td>
</tr>
<tr>
<td>CET 4523</td>
<td>Applied Systems Analysis II</td>
<td>CET 3383.</td>
<td>EN 3(3,0)</td>
</tr>
<tr>
<td>CET 4915C</td>
<td>Senior Design Project</td>
<td>Computer, Electronics, or Information Systems Engineering Technology senior within 18 semester hours of graduation. Supervised individual or group projects involving project definition, planning, design, development, testing and evaluation. Progress reports and final report are required.</td>
<td>EN 3(1,4)</td>
</tr>
<tr>
<td>CET 4931</td>
<td>Current Topics in Technology</td>
<td>C.I. Study of recent state-of-the-art computer related topics from recognized electronics and computer oriented technical journals and texts. Requires written and verbal communication.</td>
<td>EN 3(3,0)</td>
</tr>
<tr>
<td>CGN 3501C</td>
<td>Civil Engineering Materials</td>
<td>C.I. The characterization of materials used in civil engineering works to include concrete, soils, bituminous, polymers and composite materials.</td>
<td>EN 3(2,3)</td>
</tr>
<tr>
<td>CGN 4300</td>
<td>Civil Engineering Systems</td>
<td>EGN 3613; MAC 3313; STA 3032. Mathematical techniques commonly associated with operations research and economics which are applicable to the planning, design, and operation of civil engineering systems.</td>
<td>EN 3(3,0)</td>
</tr>
<tr>
<td>CGN 5320C</td>
<td>Geographic Information systems</td>
<td>Programming theory and application of Geographic Information Systems to Civil Engineering projects.</td>
<td>EN 3(2,2)</td>
</tr>
<tr>
<td>CGN 5504C</td>
<td>Civil Engineering Materials</td>
<td>C.I. Structure, properties and applications of materials used in civil engineering including concrete, steel, asphalt, wood, soils, and composite materials.</td>
<td>EN 3(2,2)</td>
</tr>
<tr>
<td>CGN 5506C</td>
<td>Asphalt Concrete Mix Design</td>
<td>CEG 4101. Properties of asphalt, aggregate and asphalt mixtures, Marshall mix design, Hveem mix design, pavement rehabilitation.</td>
<td>EN 3(2,2)</td>
</tr>
<tr>
<td>CGS 1060C</td>
<td>Introduction to Computer Science</td>
<td>History, typical computer, number systems, control and data flow, peripheral components, memory devices, effects of computers on society, applications of computers. Not open to Computer Science Majors.</td>
<td>AS 3(2,2)</td>
</tr>
<tr>
<td>CGS 2061</td>
<td>Personal Computing</td>
<td>Survey of personal computers on the market; applications for education, entertainment and clerical work; programming in BASIC with exercises. Not open to Computer Science Majors.</td>
<td>AS 3(3,0)</td>
</tr>
<tr>
<td>CGS 3000C</td>
<td>Computer Fundamentals for Business Applications</td>
<td>Hardware/software for business data processing; survey use of business applications programs utilizing pre-written programs. Not open to Computer Science Majors.</td>
<td>AS 3(2,1)</td>
</tr>
<tr>
<td>CGS 3100</td>
<td>Business Applications Programming</td>
<td>PR: CGS 3000 or equivalent. Basic programming concepts and techniques, algorithm design, documentation, programming for selected business applications using BASIC. Programming projects. Not open to Computer Science majors.</td>
<td>AS 3(3,0)</td>
</tr>
<tr>
<td>CGS 3262</td>
<td>Survey of Hardware</td>
<td>PR: CGS 3100. Survey of microcomputer hardware. Machine instructions, loaders, file structures, file maintenance, operating systems, utility programs, and architecture. Not open to Computer Science majors.</td>
<td>AS 3(3,0)</td>
</tr>
<tr>
<td>CGS 3422</td>
<td>Programming and Numerical Methods</td>
<td>CR: MAC 3312. Programming with a high-level language (e.g., FORTRAN), I/O, formatting and manipulation of one and two-dimensional arrays, with emphasis on numerical problems. Not open to Computer Science Majors.</td>
<td>AS 3(3,0)</td>
</tr>
<tr>
<td>CGS 3516</td>
<td>Spreadsheet Concepts</td>
<td>PR: CGS 1060C. The history, features, design and commands of the spreadsheet environment. File handling data entry and editing summary of command and built-in functions. Formatting, order of evaluation.</td>
<td>AS 1(1,0)</td>
</tr>
</tbody>
</table>
CGS 3517
Spreadsheet and Macros: PR: CAP3517. The spreadsheet ranges, graphics, linking sheets (spreadsheets and others), and basic and intermediate macros.

CGS 3518
Advanced Spreadsheet and Decision Making Tools: PR: CGS 3517. Advanced macros, database facilities, linkages to other decision making tools, and algorithmic issues.

CGS 3580
Word Processor Concepts: PR: CGS 1060C. The history, features, design and commands of Windows environment word processor — text entry and editing summary of command and built-in functions, dictionaries and thesaurus, and formatting and report control.

CGS 3581

CGS 3582

CGS 4140
Computerized Health Information Systems: PR: CGS 3000 or equivalent. Analysis of computerized health information systems, with emphasis upon the design and implementation phases. On-site visitations of several local computerized health information systems. Not open to Computer Science majors.

CHI 1120
Elementary Chinese Language and Civilization I: Designed to initiate the student to the major language skills: listening, speaking, reading and writing.

CHI 1121
Elementary Chinese Language and Civilization II: PR: CHI 1120 or equivalent. Continuation of CHI 1120.

CHM 1020
Concepts in Chemistry: PR: MAC 1104 or MGF 1203. Concepts will be examined to provide insight into the significant role that chemistry plays in our culture. Intended as a general education course.

CHM 1032
General Chemistry: PR: MAC 1104, MGF 1203 or equivalent. An introductory study of the fundamental concepts of chemistry, primarily oriented toward COH and PA majors.

CHM 1032L
General Chemistry Laboratory: CR: CHM 1032. An introductory study of physical and chemical properties of elements and compounds.

CHM 2045
Chemistry Fundamentals I: PR: High school chemistry or CHM 1032. Basic physical theory of chemical reactivity, atomic structure, chemical bonding, periodicity, stoichiometry, equilibria, thermodynamics, and kinetics.

CHM 2045H
Honors Chemistry Fundamentals I: PR: Admission to University Honors Program and high school chemistry. Same as CHM 2045 with honors-level content.

CHM 2046
Chemistry Fundamentals II: PR: CHM 2045. Continuation of CHM 2045.

CHM 2046H
Honors Chemistry Fundamentals II: PR: 2045H. Same as CHM 2046 with honors-level content.

CHM 2046L
Chemistry Fundamentals Laboratory: PR: CHM 1032 or CR: CHM 2046. Illustration of chemical principles and introduction to the techniques of inorganic and physical chemistry.

CHM 2205
Introduction to Organic and Biochemistry: PR: CHM 1032 or equivalent. An introduction to organic chemistry, stressing the chemistry of functional groups and a survey of the biochemistry of proteins, carbohydrates, lipids, and nucleic acids.

CHM 3120C
Analytical Chemistry: PR: CHM 2046, 2046L. Laboratory practices of classical and instrumental analysis. Choice of preferred analytical methods and techniques is emphasized through applications involving both inorganic and organic systems.

CHM 3210
CHM 3211

CHM 3211L
Organic Laboratory Techniques I: PR: CHM 3210. An introduction to the laboratory techniques of organic chemistry, including the preparation, reaction, and analysis of organic compounds.

CHM 3212L
Organic Laboratory Techniques II: PR: CHM 3211 and 3211L. Open-end laboratory to develop synthesis techniques and structure elucidation skills.

CHM 3410

CHM 3411
Physical Chemistry II: PR: CHM 3410. Continuation of CHM 3410.

CHM 3411L
Physical Chemistry Laboratory: CR: CHM 3411. Classical as well as modern instrumental techniques coupled with computer data processing to measure physical properties and determine atomic and molecular Parameters.

CHM 4130C
Advanced Analytical Laboratory Technique: PR: CHM 3211, CHM 3120C and CHM 3411. A lecture-laboratory course designed to give in-depth coverage to modern methods of analysis including electrochemistry, spectroscopy, and separation techniques.

CHM 4610

CHM 4610L
Inorganic Chemistry Laboratory: PR: CHM 4610. A study of physical and chemical properties and synthetic techniques in inorganic Chemistry.

CHM 4930
Undergraduate Chemistry Seminar: PR: CHM 3411. A topic of current chemical interest will be presented by students at a regularly scheduled departmental seminar.

CHM 5225

CHM 5226

CHM 5235

CHM 5255
Applied Biological Chemistry: PR: CHM 3211. The identification from plants, synthesis, assessment of bioactivity, and design of pharmaceuticals and agrochemicals, as well as the impact of biotechnology in the chemical industry.

CHM 5450
Polymer Chemistry: PR: CHM 3211. An introduction to the chemistry of synthetic polymers. Synthetic methods, polymerization mechanisms, characterization techniques, and polymer properties will be considered.

CHM 5451
Polymer Chemistry Laboratory: PR: CHM 3211 AND CHM 3410. A laboratory course designed to introduce students to the major polymerization mechanisms. Polymer synthesized in the laboratory will be characterized using modern instrumental methods.

CHM 5580

CHM 5711
The Chemistry of Materials: PR: CHM 3211, CHM 4130C, and CHM 3411. Structure and properties of chemical products, with an emphasis on the correlation between molecular form and the functional properties deemed desirable for the product.

CHM 5830
The Chemistry of Materials: PR: CHM 3211, CHM 4130C, and CHM 3411. Structure and properties of chemical products, with an emphasis on the correlation between molecular form and the functional properties deemed desirable for the product.

CHS 1440
Fundamentals of Chemistry for Engineers: PR: One year of high school chemistry or CHM 1032. Basic concepts of chemistry, with emphasis on problem solving and engineering applications. Atomic and molecular structure, states of matter, stoichiometry, equilibria, electrochemistry and thermodynamics.

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CHS 3501 AS 3(3,0)
Introduction to Forensic Science: Intended for majors and non-majors to provide an overview of the specialty areas in Criminalistics (crime lab).

CHS 3505 AS 3(1,6)
Forensic Microscopy: PR: CHM 2046 or C.I. The study of the polarized light microscope and its use in the identification and comparison of trace evidence.

CHS 3511 AS 3(1,6)
Trace Evidence: PR: CHS 3505. An advanced study of the techniques used to identify and compare trace evidence.

CHS 3530 AS 3(1,6)
Forensic Analysis of Controlled Substances: PR: CHM 3120C. The study of the presumptive tests, isolation, and instrumental techniques used in identification of controlled substances.

CHS 3531C AS 3(2,3)

CHS 3595 AS 3(3,0)
Forensic Science in the Courtroom: PR: CHS 3501. The special needs of the forensic scientist in preparing for and participating in courtroom proceedings.

CHS 4200 AS 3(3,0)
Concepts in Industrial Chemistry: PR: CHM 3410. An introduction to industrial practices, emphasizing the application of chemical principles in the development of a commercial process or product.

CHS 4532 AS 3(1,6)
Forensic Serology: Molecular Methods: PR: CHS 3531C and CR: BCH 4053, 4054, and BCH 4103L. A review of the sample recovery techniques and molecular procedures (RFLP/PCR) used to evaluate biological samples for testimony in court.

CHS 4591 AS 6(0,4)
Forensic Science Internship: PR: C.I. Credit for full-time work (15 weeks; 600 hours) for a professional forensic laboratory. This course may be repeated for credit.

CHS 5241 AS 2(2,0)
Chemical Dynamics II: PR: CHS 5240. Continuation of CHS 5240.

CHS 5250 AS 2(2,0)
Chemical Synthesis I: PR: CHM 3211, 3411; or equivalent. Survey of chemical synthesis from the standpoint of planning a synthesis, intermediates, special techniques, protection of functional groups, experimental design and optimization of reaction conditions.

CIS 4321 AS 3(3,0)
Data Processing Systems Analysis and Design: PR: Computer Science Major or C.I. and COP 3530. Data organization; physical storage; database system architecture. Students participate in the design of a data processing system.

CIS 4322 AS 3(3,0)
Data Processing Systems Implementation: PR: Computer Science Major or C.I. and CIS 4321. System implementation project. Students experience the task of implementing a large computing system.

CIS 6101 AS 3(3,0)
Computational Techniques in Management Information Systems: PR: COP 4710. Computers in management information systems; analysis, design approaches, processing methods and data management; use of state-of-the-art software in design and development.

CJT 3820 HPA 3(3,0)
Security Administration: Discussion of modern security administration and the security-law enforcement interface, emphasizing a systems approach and utilizing the design of a security plan for a plant.

CJT 3821 HPA 3(3,0)
Practical Security Applications: An examination of basic security principles applied to practical specific security situations encountered in the Central Florida area.

CJT 3842 HPA 3(3,0)
Special Security Problems: Review and application of basic security principles to retail security, transportation/cargo security, utility security, computer security, and other special security situations.

CLA 3850 AS 3(3,0)
Classical Mythology: Myths of the Greeks & Romans studied through excerpts from ancient sources and experienced through works of art, literature, and music.

CLA 3851 AS 3(3,0)
Comparative Mythology: Common themes found in the myths of various cultures; theories of their origins, meaning and value in human experience.
CLP 3003 Psychology of Adjustment: PR: PSY 2013. Psychological principles of adjustment; application of psychology to problems in living. Designed for non-majors.

CLP 3143 Abnormal Psychology: PR: PSY 2013 and PPE 3003. Classification, causation, and treatment of deviant patterns of behavior.

CLP 3302 Clinical Psychology: PR: PPE 3003 and CLP 3143. An overview of approaches to psychopathology, methods of clinical assessment, and various approaches to individual and group counseling.

CLP 3413 Contemporary Behavior Therapy: PR: CLP 3143. Emphasis on the underlying principles and the specific intervention procedures which are utilized in contemporary behavior therapy, including treatment strategies for particular behavior disorders.


CLP 5166 Advanced Abnormal Psychology: Consideration of classification, causation, management and treatment of emotional disorders. Review of theories and research in the field. Lecture/Laboratory.

CMC 4240 Corporate/Institutional Video: PR: RTV 3200, RTV 3260 (RTV 3260 may be taken concurrently). Preparation of non-broadcast corporate/institutional video programs including planning, budgeting, production, and evaluation.

COM 3311 Communication Research Methods: Investigation of research methods used in communication. Understanding and interpretation of original research emphasized.

COM 3011 Communication and Human Relations: Introduction to semantics; symbols and meaning and the relationship with human behavior.

COM 3110 Business and Professional Communication: Majors only. PR: SPC 1600 or C.I. Theoretical and practical training in effective presentational speaking for business and professions.

COM 3120 Organizational Communication: A study of communication functions and problems within the contexts of hierarchies.

COM 3311 Communication Research Methods: Investigation of research methods used in communication. Understanding and interpretation of original research emphasized.

COM 3701 Humor in Communication: Designed for upper division organizational and interpersonal communication majors, course probes the involvement of humor in language, message transmission, cognition, and social functioning.

COM 4461 Intercultural Communication: Study of variables affecting messages and participants in intercultural contexts.

COM 4462 Conflict Management: The study of communication in everyday conflicts.

COP 2210C Pascal Programming Language: Programming in Pascal; Use of the LAN, editor and debugger. Basic Program structure and syntax; Simple and structured data types.

COP 2500 Computer Science I: PR: College algebra and trigonometry, CR: Knowledge of Pascal. Foundations of Computer Science; problem solving, algorithm design and analysis procedural and data abstraction, implementation, techniques, recursion.

COP 2501 Computer Science II: PR: COP 2500. Continuation of COP 2500; recursion; simple data structures; program verification; continued experience with a procedure-oriented language.
COP 3120  AS 3(3,0)

COP 3200  AS 3(3,0)
Computer Programming: PR: College algebra and trigonometry or equivalent. Problem definitions, algorithms, flow charts, digital computer programming using a higher level language (FORTRAN). Not open to Computer Science majors.

COP 3211  AS 1(1,0)
Intermediate Pascal: PR: COP 3210 or equivalent knowledge. Programming in Pascal; structural data types, pointers, dynamic variables, strings, and units.

COP 3212  AS 1(1,0)
Advanced Pascal: PR: COP 3211 or equivalent knowledge. Programming in Pascal; recursion, objects, inheritance, methods, encapsulation, virtual methods, and polymorphism.

COP 3220  AS 1(1,0)
C Programming Language: PR: Knowledge of a procedural high-level programming language. Lecture and programming experience in C.

COP 3221  AS 1(1,0)
Intermediate C Language: PR: COP 3220 and COP 3341, or equivalent knowledge. Lectures and experience using the standard C language subroutine libraries and selections from public domain and internet code archives.

COP 3222  AS 1(1,0)
Advanced C Language: PR: COP 3221 and COP 3341 or equivalent knowledge. Lectures and programming experience in C++.

COP 3230  AS 1(1,0)
ADA Programming Language: PR: Knowledge of a procedural high-level programming language. Lecture and programming experience in ADA.

COP 3341  AS 1(1,0)
UNIX: PR: Knowledge of the C programming language. Lecture and programming experience in UNIX.

COP 3342  AS 1(1,0)
Intermediate UNIX: PR: COP 3341 or equivalent knowledge. Introduction to the procedures and techniques used to plan, configure, install, monitor, maintain, and tune UNIX operating systems and applications for optimum performance.

COP 3345  AS 1(1,0)
Advanced UNIX: PR: COP 3342 or equivalent knowledge. Introduction to procedures and practices used to establish client server applications over Local Area Networks and to extend these applications to run over Wide Area Networks. Emphasis placed upon using TCP/IP protocols. Discussions include emerging technologies such as Frame Relay and ATM.

COP 3400  AS 3(3,0)
Assembly Language: PR: COP 2501 or equivalent programming experience. Computer structure, number systems, data representation, arithmetic and logic instructions, addressing schemes, looping techniques, sequential input/output, subroutines, macros, and other topics.

COP 3402C  AS 3(2,1)

COP 3530  AS 3(3,0)
Computer Science III: PR: COP 2501 and COT 3100. Algorithm design and analysis for tree, list, set, relational and graph data models; effects of representation on algorithmic complexity. Introduction to parallel implementations.

COP 3701  AS 1(1,0)
Database Concepts: PR: CGS 1060C. The relational model using current software, logical and physical data structures, data concepts and modeling conceptual database design. Implementation and physical design relational database language fundamentals.

COP 3702  AS 1(1,0)

COP 3703  AS 1(1,0)
COP 4020 Programming Languages I: PR: COP 3530. Survey of programming languages (LISP, MODULA, SIMULA, SMALLTALK, ADA, CLU). Basic concepts underlying programming languages: data typing, data abstraction, binding, parameter evaluation, concurrency, functional programming.

COP 4124 COBOL Environment: PR: Computer Science core. Basic and advanced features; creation of user libraries; system utilities; file processing; sub-program linkage; programming efficiencies; compiler study; assembly interfaces, and JCL.

COP 4232 Ada Systems Development I PR: COP 3530 or C. A thorough introduction to Ada, types, packages, generics, principles of object-oriented analysis and design, program and data abstraction and event driven simulations.

COP 4233 Ada Systems Development II: PR: COP 4232. Continuation of Ada Systems Development I. Object-oriented analysis and design methods combines with Ada-based implementation, testing, techniques, team oriented project management.

COP 4331 Object-Oriented Paradigms: PR: COP 3402, COP 3530. Object-oriented (OO) analysis of problems; design and implementation of 00 solutions. Principles and practices associated with environments and languages to support the 00 paradigm.

COP 4520 Concepts of Parallel and Distributed Processing: PR: COP 3530, COP 3402. Parallel and distributed paradigms, architectures and algorithms, and the analytical tools, environments and languages needed to support these paradigms.

COP 4521 Projects in Parallel and Distribution Processing: PR: 4520. Research and projects related to emerging architectures, computational models, languages and environments for parallel and distributed computation.

COP 4600 Introduction to Operating Systems: PR: COP 3402 and COP 3530. The function and organization of operating systems, process management, virtual memory, and file management.

COT 4500 Numerical Calculus: PR: COP 2501 or CGS 3422 and MAC 3312. Review of calculus, foundations of calculus, single variable functions, one-dimensional optimization, multivariable calculus, and numerical linear algebra.


COT 5310
Formal Languages and Automata Theory: PR: COP 4020 and COT 4210. Classes of formal grammars and their relation to automata, normal forms, closure properties, decision problems. LR(K) grammars.

COT 5405

COT 5507
Computational Methods/Applications: PR: COT 4500. Computational solution techniques for algebraic equation, ODE and PDE Models of applications selected from science, engineering, applied mathematics, and computer science.

COT 5510
Computational Methods/Linear Systems: PR: COT 4500 and MAS 3113. Mathematical models for linear systems, linear programming, the simplex method, integer and mixed-integer programming, introduction to nonlinear optimization and linearization.

COT 5520
Computational Geometry: PR: COT 5405. Geometric searching, point location, convex hulls, proximity problems, Voronoi diagrams, Spanning trees, triangulation, intersections arrangement applications.

CPO 3034
Politics of Developing Areas: Comparative analysis of theories, problems and politics of development in Third World nations.

CPO 3103
Comparative Politics: Government and politics in selected nations, with emphasis upon comparative analysis of contemporary problems, politics, political culture, behavior, and institutions.

CPO 3104
Politics of Western Europe: PR: POS 2041 or C.I. An examination of the political and economic dynamics of Western Europe in the post-1945 era.

CPO 3122
Introduction to Canadian Studies: A multi-disciplinary approach to the study of Canada, its people, culture, government, and economy.

CPO 3403
Politics of the Middle East: PR: POS 2041 or C.I. An examination of the dynamics of Middle East politics, including both regional and international dimensions.

CPO 3614
Politics of Eastern Europe: PR: POS 2041 or C.I. An examination of the political and economic dynamics of Eastern Europe in the post-1945 era.

CPO 4062
Comparative Judicial Process: Study of courts and judges in cross national context. Focus upon judicial recruitment, decisional patterns, and policy outcomes.

CPO 4123
Government and Politics of Great Britain: A survey of British government, society, politics and institutions, emphasizing parliamentary traditions. Britain's foreign policy and European role will be discussed.

CPO 4133
Government & Politics of Canada: Examines the origins and development of Canadian government. Focuses on the functioning of federalism, nationality politics, foreign policy, and relations with the United States.

CPO 4303
Comparative Latin American Politics: Comparative analysis of politics, society and culture in Latin America and selected countries of the region.

CPO 4543
Government and Politics of Russia: Study of the origins, institutions, and functioning of the Russian system, including the lingering influence of the old order on domestic and foreign policy.

CRT 4931
Current Topics in Technology: PR: C.I. Study of recent state-of-the-art computer related topics from recognized electronics and computer oriented technical journals and texts. Requires written and verbal communication.

CRW 1001
Imaginative Writing for Non-English Majors: An introduction to imaginative writing for non-English majors. Students will explore a variety of traditional and non-traditional forms of imaginative writing.
Fiction Writing: PR: CRW 3000. English majors in creative writing specialize in fiction writing; advanced group analysis and criticism of work produced by individual students.

Creative Writing for English Majors: PR: ENC 1102 and English or English Education major, Junior standing, or C.I. The theory and techniques of literary genres; practice and critique of original writing by peers; critical reading of established authors.

Theory and Practice of Fiction Writing: PR: CRW 3003. English or English Education major, Junior standing, or C.I. English majors in creative writing specialize in the theory and practice of narrative; group analysis and criticism of original work by peer English majors.

Creative Nonfiction Writing: PR: CRW 3003 and English or English Education major or C.I. Writers present original nonfiction writing for class response and individual conferences. Close reading of key works of creative nonfiction with discussion of definitions of the genre.

Theory and Practice of Poetry Writing: PR: CRW 3003, English or English Education major, Junior standing, or C.I. English majors in creative writing specialize in the theory and practice of verse; group analysis and criticism.


Writing Scripts: PR: CRW 3000 and Grammar Proficiency Exam. Theory and practice of writing scripts for film and TV.

Literary Magazines: PR: CRW 3000. Examination of fiction and poetry trends in current literary magazines, identifying editorial policies in publication of contemporary literature.


Advanced Fiction Writing Workshop: PR: CRW 3100. Intensive writing practice in fiction. Peer critique and group discussion of original manuscripts. May be repeated once for credit.

Science Fiction Writing: Study of science fiction literature and writing of original science fiction stories. Workshop format with critique of writing assignments.

Advanced Scriptwriting Workshop: PR: CRW 3410. Intensive writing practice in writing scripts. Peer critique and group discussion of original manuscripts. May be repeated once for credit.

Teaching Creative Writing: PR: C.I. Creative writing practicum.


Hydrology: PR: STA 3032, CWR 3201. Hydrological cycle, probabilistic forecasting, rainfall excess meteorology, groundwater, storm-water runoff, flood routing and design applications.

Hydraulics: PR: CWR 3201 Continuation of CWR 3201 with emphasis on piping networks, pumps, and hydraulic systems. Laboratories with civil and environmental engineering applications.

Water Resources Design: PR: CWR 4101C, CWR 4203C. Project course for the design of storm water and sewer transmission systems using local and state regulations.

CWR 5545 Water Resources Engineering: PR: CWR 4101C, CWR 4203C. Systems identification and solution to complex water allocation problems, and other hydraulic engineering designs and operations using economic analysis and operations research techniques.

DAA 2000 Theatre Dance: PR: DAA 2200 & 3201 or C.I. Specialized study of Theatre Dance styles of the 1920s to the 1980s. Demonstration and performance of students highlighting segments of Broadway shows. May be repeated for credit.

DAA 2100 Theatre Modern Dance: PR: DAA 2200 & 3201 or C.I. Exploration of form, style, and technique in creative movement. Includes practical class work and history lectures.

DAA 2200 Theatre Dance I: Fundamentals of Classical Ballet; includes practical class work as well as Dance History lectures.

DDA 2500 Intermediate Jazz Dance: PR: DAA 2200 or C.I. Introduction of the basic movements of American Jazz Dance, including practical class work as well as Jazz Dance history.

DAA 3201 Intermediate Classical Ballet: PR: DAA 2200 or C.I. In-depth study of classical ballet technique, including principles, theory, and practice technique.

DAA 3600 Theatre Tap Dance: Exploration of form, style, and technique in the basic fundamental movements of tap dance. May be repeated for credit.

DAA 4501 Advanced Jazz Dance: PR: DAA 2200 & DAA 3500 or C.I. In-depth study of Jazz Dance as a major style of dance, using theory and practice in jazz technique.

DAA 4710 Theatre Dance Choreography and Performance: PR: By audition. Students will create and present a piece choreographed and performed by other dancers in concert. May be repeated for credit.

DAE 3370 Dance and Rhythms: The development of skill proficiency and instructional strategies in rhythmics and dance techniques, and fundamental movement patterns for grades K-12.

DEP 3004 Developmental Psychology: PR: PSY 2013. The effects of genetic, psychological, maturational and social factors on behavior throughout the life cycle.

DEP 3202 Psychology of Exceptional Children: PR: PSY 2013. Psychological problems of exceptional children, including diagnosis, associated emotional problems, effects of institutionalization, special class placement, attitudes, and appropriate intervention methods.

DEP 3212 Psychological Approaches to Mental Retardation: PR: PSY 2013. The problems of mentally retarded citizens, including diagnosis, environment versus heredity, legal restrictions, institutionalization, as well as methods of behavioral remediation.

DEP 3464 Psychology of Aging: PR: PSY 2013. An examination of basic psychological processes related to the aging process, with emphasis on the applied implications of changes in perceptual-motor, social emotional and cognitive-intellectual function.

DEP 5057 Developmental Psychology: PR: Graduate admission or C.I. Psychological aspects of development including intellectual, social, and personality factors.

EAB 3703 Principles of Behavior Modification: PR: EXP 3404. An examination of the control of behavior through applications of principles and theories of learning. Examples are drawn from clinical and social psychology and from child rearing. Lecture/Practicum.


EAB 5765 Applied Behavior Analysis with Children and Youth: PR: DEP 5057 and EXP 5445 or C.I. Advanced survey of principles, procedures, and techniques of applied behavior analysis, with special attention to applications with children and youth.

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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Prerequisites</th>
<th>Course Description</th>
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</thead>
<tbody>
<tr>
<td>EAS 3010</td>
<td>Aerospace Flight</td>
<td>Sophomore standing. The history of human flight. Introduction to atmospheric flight and space flight.</td>
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<tr>
<td>EAS 3101</td>
<td>Fundamentals of Aerodynamics</td>
<td>PR: EML 3701. Fundamentals of inviscid, incompressible flow over aerodynamic shapes. Theories include potential flow concepts and classical methods as they apply to airfoils, finite wings, etc.</td>
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<tr>
<td>EAS 3810C</td>
<td>Design of Aerospace Experiments</td>
<td>PR: EAS 3010, EML 3701; CR: EAS 3520. Extension of EAS 3800C. Advanced design of experiments in aero/aerospace systems with emphasis on project team activity.</td>
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<tr>
<td>EAS 4134</td>
<td>High-Speed Aerodynamics</td>
<td>PR: EAS 3101. Continuation of EAS 3101. Normal and oblique shock waves, nozzles and wind tunnels, methods of analyzing compressible flow about airfoils, wings, and bodies. Viscous boundary layers and applications to the design process.</td>
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<tr>
<td>EAS 4210</td>
<td>Space Structural Dynamics</td>
<td>PR: EAS 4200, EML 4312 or C.I. Analytical mechanics and linear system theory. Modern approach to control of lumped parameter systems. Review of space structure applications. Use of finite element methods.</td>
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<tr>
<td>EAS 4300</td>
<td>Aerothermodynamics of Propulsion Systems</td>
<td>PR:EAS 4134 or EML 4703. Fundamental analysis and design considerations of propulsion systems. Turbojets, ramjets and rockets.</td>
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<tr>
<td>EAS 4400</td>
<td>Spacecraft Attitude Dynamics</td>
<td>PR: EML 4312C. Kinematics and dynamics of rigid and multibody spacecraft rotational motion. Attitude control with momentum exchange actuators and thrusters.</td>
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<tr>
<td>EAS 4505</td>
<td>Orbital Mechanics</td>
<td>PR: EGN 3321, MAP 3302. Two-body problem, orbital equations, orbital transfer, earth satellite operation.</td>
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<tr>
<td>EAS 4700C</td>
<td>Aerospace Design I</td>
<td>PR: EAS 3810C. Application of the design process to the team solution of a state-of-the-art problem. Airplanes and space vehicles, systems and devices are considered.</td>
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<tr>
<td>EAS 4710C</td>
<td>Aerospace Design II</td>
<td>PR: EAS 4700C. Continuation of the design process in the team building and testing of a prototype/model of an airplane, spacecraft, system or device.</td>
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<tr>
<td>EAS 5302</td>
<td>Direct Energy Conversion</td>
<td>PR: EML3101 and PHY 3101. Direct methods of energy conversion; particular emphasis on fuel cells, thermoelectrics, thermionics, solar energy, photovoltaics, and magneto-hydrodynamics. Analysis and systems design.</td>
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</tr>
<tr>
<td>EAS 5315</td>
<td>Rocket Propulsion</td>
<td>PR: EAS 4134 or EML 4703. Analysis and performance of rocket motors; selection and thermochemistry of chemical propellants: liquid and solid propellant rockets.</td>
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</tr>
</tbody>
</table>
ECM 5135  Engineering Math Analysis I: PR: MAP 3302. Topics in advanced engineering mathematics, including systems of differential equations, phase plane, linear algebra, and vector differential calculus.

ECM 5741C  Microcomputer-based Monitoring and Control Systems: PR: EEL 3342; EEL 4767C or C.I.: Machine language programming; software development aids; systems design; interfacing considerations.

ECO 2013  Principles of Economics I: An introduction to macroeconomics, including an overview of the market economy, national income, employment, and price level determination, stabilization policies, and international economics.

ECO 2013H  Honors Principles of Economics I: PR: Open to Honor Students only. Same as ECO 2013 with honors-level content.

ECO 2023  Principles of Economics II: The determination of prices in a market economy; their role in allocating consumer and producer goods and in distributing incomes, including attempts to improve market efficiency through public policy.


ECO 3723  International Commercial Policy: PR: ECO 2013 and ECO 2023. Presents the fundamentals of international commercial policy, with special emphasis on U.S. trade policy since WW II.


ECO 4504  Economics of the Public Sector: PR: ECO 2023. A study of fiscal institutions and decision-making, and how government budgetary policy (spending, taxing, borrowing, and debt management) affects the economy and its citizens.

ECO 5005  Economic Concepts: PR: Acceptance into the graduate program. Introduction to micro and macro economic analysis.
ECO 5415 Statistics for Business and Economics: PR: Acceptance into the graduate program and MAC 3233. Statistical theory and problems relating to business and economics, including time series and correlation theory, index number theory and statistical inference.


ECP 3203 Contemporary Labor Economics: PR: ECO 2023 and ECO 2013. The analysis of labor problems and issues in a dynamic contemporary economy through the interaction of the four major institutions: households, firms, government, and unions.

ECP 3433 Transportation Economics: PR: ECO 2023 and ECO 2013. Economic characteristics and governmental regulation of public carriers. Consideration of competitive relations between modes of transportation and criteria for public investment in transportation and criteria of public investment in transportation systems.

ECP 4403 Business, Government, and Industrial Organizations: PR: ECO 2023 and ECO 2013. A study of the performance of industries representative of various types of market structure and practices, as well as the public policies affecting these industries.

ECP 4603 Urban and Regional Economic Problems: PR: ECO 2023 and ECO 2013. Analysis of the location, organization and problems of urban and regional economic activities.

ECP 4703 Managerial Economics: PR: Junior standing, ACG 2071 or ACG 2023, ECO 2023, ECO 2013 and ECO 3411. The uses of economic analysis in economic decision-making and business policy formulation.


ECS 4303 Economics of European Integration: PR: ECO 2013 and ECO 2023. Presents the development of the European Community, with emphasis on the characteristics of the Single European Act (EC ’92).

EDE 3942 Internship I (Elementary): PR: EDG 4321, RED 3012, MAE 3810 AND 3811 or MAE 3112. Student teaching assignment in an elementary school under the supervision of a certified classroom teacher.

EDE 3943 Internship I(K-12): PR: Exceptional Education Majors; EDG 4321; RED 3012; MAE 3112. Student teaching under the supervision of a certified teacher. Half in elementary, half in secondary.

EDE 4943 Internship II (Elementary): PR: EDE 3942 or EDE 3943. Student teaching in an elementary school under the supervision of a certified classroom teacher. Scheduled concurrent seminars.

EDE 5541 Individualized Instruction in the Elementary School: PR: Regular Certificate or C.1. Study of basic philosophy, organizational patterns, techniques, materials, and activities related to individualizing instruction in the elementary school classroom.

EDE 1076 Introduction to Educational Internship: Introduction to educational internship with selected partnership institutions.

EDE 2006 Introduction to Education: An overview of the teaching profession and contemporary issues affecting teachers and students. For students considering a career in any area of professional education.
EDF 2283 ED 3(3,0)
Introduction to Applications of Technology in Education: Classroom applications of instructional media including computers.

EDF 3120 ED 3(3,0)
Observing Child Growth and Development: PR: Admission to the program. Provides a comprehensive introduction to the principles and basic theories of child growth and development from pre-natal development through age eight.

EDF 3214 ED 3(3,0)

EDF 3601 ED 3(3,0)
Professional Ethics in Education: Pedagogical knowledge, awareness of educational process and the analytical skills necessary for responsible public involvement in educational policy making.

EDF 3603 ED 3(3,0)
Analysis of Educational Foundations: PR: Junior standing or C.I. Analysis of and participation in general and specific dimensions of teaching with socio-economic, historical and philosophical factors emphasized.

EDF 3690 ED 3(3,0)
Myths and Realities in Education: Myths and realities in educational research will be analyzed, and public policy will be analyzed and reviewed.

EDF 3740 ED 3(3,0)
Foundations of Early Childhood Education: PR: Admission to the program. Overview of Early Childhood Education and services for young children and families. Includes historical, philosophical, and sociological perspectives; learning theories as related to early childhood.

EDF 4214 ED 3(3,0)
Classroom Learning Principles: PR: EDF 2xxx, Junior standing or C.I. Principles of learning as applied to classroom teaching situations, with emphasis on student development, behavior, self-concept and motivation.

EDF 4282 ED 3(3,0)
Applications of Technology in Education: Classroom applications of instructional media including computers. Includes experiences with equipment, commercial and teacher-made media, and their uses.

EDG 4234 ED 3(3,0)
Teaching Strategies II: PR: EDG 4321 and EDF 4214. Varieties of learning and teaching styles, appropriate methods of teaching thinking skills, problem solving, reading, and writing across the curriculum.

EDG 4941 ED 1-8(0-1-8)
Directed Field Experience: PR: Approval of Professional Laboratory. Field experience in an appropriate educational setting under the direction of a supervising teacher and/or university supervisor.

EDG 5325 ED 3(3,0)
Techniques for the Developing Professional in Education: PR: C.I. Analysis, study, development, and use of techniques for enhanced instruction in the educational setting.

EDG 5337 ED 3(3,0)
Teaching Individuals, Small and Large Groups: PR: C.I. Study of teaching skills for effectively instructing individuals in various educational groups, with consideration of developmental and behavioral characteristics of students.

EDG 5745 ED 3(3,0)
Teaching the Non-English Student: PR: FLE 3063 or C.I. Bilingual and non-linguistic instruction in curriculum areas in English as a second language.

EDG 5941 ED 2-8(0,11)
Clinical Practice: PR: Admission to STEP II, III or IV. Clinical Internship in an appropriate educational setting under the direction of a university supervisor or peer teacher.

EDM 5235 ED 3(3,0)
Teaching in the Middle School: Methods of middle school teaching; team planning and teaching; development and learning patterns of the emerging adolescent; use of alternative teaching strategies.
Supervision of Professional Laboratory Experiences: PR: C.I. Study of the undergraduate professional laboratory experiences program, with emphasis on the role and responsibilities of the Teacher Education Associate or Supervising Teacher.

EEC 2001
Introduction to Early Childhood Education: An overview of early childhood education and services for young children and their families. Includes historical roots, societal changes, program differentiation and future trends.

EEC 3269
Play Development: Explores play development, facilitation, intervention and assessment. Designing play environments is emphasized.

EEC 3301
Active Learning Teaching Strategies: Studies an integrated developmental-interactionist approach to curriculum planning and design. Equipment selection, room arrangements, daily schedules and active learning teaching strategies are emphasized.

EEC 3610
Social and Emotional Development of Young Children: Provides an in-depth understanding of the social and emotional development of the young child. Examines the implication for curriculum development.

EEC 3613
Observation and Assessment of Young Children: PR: Admission to the program. Appropriate methods for diagnosing, assessing, and evaluating young children, including children with diverse cultural and ethnic backgrounds. Appropriate interventions, remediations, and enrichment.

EEC 3940
Integration Internships: Field based placement in which the students will have supervised practice integrating course content areas.

EEC 4271
Early Intervention: Provides an overview of development assessment, and intervention with at-risk and handicapped infants and toddlers.

EEC 4402
Cultural and Family Systems: Explores the institution of family in its cultural context as a living dynamic system.

EEC 4510
Infant/Toddler Care and Education: Provides the knowledge and skills that will enable the student to become a competent worker with very young children and their families.

EEC 4524
Organization and Management in Early Childhood: Provides students with managerial and supervisory skills required to administer a developmentally appropriate early childhood program.

EEC 4603
Guidance of Young Children: PR: EEC 3610. Provides students with techniques to guide the behavior of young children.

EEC 4731
Health, Safety, and Nutrition for Young Children: PR: EDF 3740. Health and safety issues in early childhood (0-8). Protection from injury and infection; promotion of healthy development, good nutrition, and appropriate health and fitness habits.

EEC 4936

EEC 4943
Student Teaching: Provides opportunities for student teachers to use the knowledge and skills they acquired in a supervised public school setting.

EEC 5205
Programs and Trends in Early Childhood Education: PR: Regular Certificate or C.I. Philosophy, content, facilities, instructional materials, and activities appropriate for children ages 3 to 8 years; current research; issues and trends. Concurrent laboratory experiences.

EEC 5206
Organization of Instruction in Early Childhood Education: PR: Regular Certificate or C.I. Organization in instruction relating to language arts, social sciences, mathematics, health and physical education, problems relating to reading readiness and cognition (K-3). Concurrent laboratory experiences.
Creative Activities in Early Childhood: PR: Regular Certificate or C.I. Organization of instruction and methods for creative activities involving music, art, literature and educational toys, integration of activities, and basic skills curriculum (K-3). Concurrent laboratory experience.

Behavioral Issues of the Emotionally Handicapped: An introduction to functional schema of the field to include behavior management techniques, theories, legal considerations, counseling skills, etiology, prevention and utilization of community services.

Introduction to the Emotionally Disturbed: PR: Senior standing. Development and practice of appropriate cognitive, affective, and motor strategies for selected categories, levels, and degrees of severity of exceptional population.

Curriculum and Program Adaptation, E.H.: Development of highly specialized curriculum and identification, evaluation, modification, and use of curriculum materials and programs for students with emotional handicaps.

Teaching the Emotionally Handicapped: Instructional strategies with emphasis on motivational strategies, development, implementation and evaluation of the IEP, modification of regular education instructional practices, crisis intervention and prevention.


Analog Filter Design: PR: EEL 3307C, EEL 3122. Analog filter design, both passive and active, from low pass prototypes using frequency transformations and based on low sensitivity.

Semiconductor Devices I: PR: EGN 3373. Electronic devices including p-n junctions, bipolar transistors, field effect transistors and device models.


Introduction to Digital Circuits and Systems: PR: PHY 3049 or C.I. Switching theory and devices. Combinational and sequential logic. Logic design using standard components such as ROM, arithmetic units, multiplexers, registers, and counters.

Electromagnetic Fields: PR: EEL 3122 and MAP 3302. Introduction to electric and magnet fields and electromagnetic waves.


Introduction to Computer Engineering: PR: Knowledge of a high level programming language. CR: EEL3342C. Introduction to the field of computer engineering. The course covers the C Language, basic computer organization, and an introduction to assembly language programming.

Senior Design: PR: For E.E.: EEL 4309, EEL 4767C, and all required EEL 3XXX courses; for CpE: EEL 4768C, EEL 3307C; CR: EEL 4884. Applications of engineering design to realistic and meaningful problems. Constraints such as economic factors, safety, reliability, aesthetics, ethics, social impact and engineering organizations are considered.


Fundamentals of Electric Power Systems: PR: EEL 3122 or C.I. Three-phase power representation and analysis, transformers, per unit system, symmetrical components, faults, transmission lines.

Electronics II: PR: EEL 3307C, EEL 3342C. Ideal Op-Amps and applications. Introduction to Logic Circuits; Bipolar, MOS and CMOS families; Flip-flops and memory cells, comparators and timing circuits: A/D and D/A converters.
EEL 4314 EN 3(3,0) Device Electronics for Integrated Circuits: PR: EEL 3306, P.N. Junctions, Bipolar Transistor Analysis, Metal Semiconductor contacts, MOS Systems MOSFET Analysis and Limitations.

EEL 4436C EN 4(3,3) Microwave Engineering: PR: EEL 3470. Microwave devices and systems and measurement techniques.

EEL 4440 EN 3(3,0) Optical Engineering: PR: EEL 3470, EEL 3552C or C.I. Lens systems, aberrations, sources, radiometry, detectors, physical optics, interferometric devices, applications to engineering design problems.


EEL 4612 EN 3(3,0) Introduction to Modern and Robust Control: PR: EEL 3657. Classical control theory including differential equations and Laplace transform techniques, stability analysis, and classical frequency domain design.

EEL 4635C EN 4(3,3) Computer Control Systems: PR: EEL 3657. Digital control systems, the z-transform, and single loop computer control systems. Digital simulation in the analysis and design of control systems with embedded computers. No graduate credit for both EEL 5630 and this course.


EEL 4781C EN 3(2,3) Computer-Aided Engineering Design: PR: ECM 4884 and EEL 4768C or C.I. Review of currently available CAE tools for digital hardware and software design applications.

EEL 4811 EN 3(3,0) Computer Systems Software: PR: EEL 4851. Introduction to operating systems concepts and facilities for engineering applications, including multiprogramming, resource allocation and management, systems utilities, and operating system implementation.

EEL 4832 EN 3(3,0) Engineering Applications of Computer Methods: PR: MAP 3302, STA 3032, EGN 3420. Engineering applications of numerical methods, including solution of differential equations, simulation, optimization, and multidimensional root-finding, integration and series approximations.

EEL 4851C EN 4(3,3) Engineering Data Structures: PR: EEL 33801C. Design of data structures and algorithms, with emphasis on performance analysis, memory organization, stacks, queues, linked lists, trees, graphs, searches, and sorts. Introduction to object-oriented structures.

EEL 4872 EN 3(3,0) Engineering Applications of Intelligent Systems: PR: EEL 4851C. Intelligent models, computer vision, natural language understanding, pattern analysis, knowledge-based systems, symbolic programming, and advanced architectures.

EEL 4882 EN 3(3,0)
EEL 4884C Engineering Software Design: PR: EEL 4851C. Software systems development life cycle, function and object-oriented methodologies, CASE; Analysis, design, and development of a large software project.


EEL 5352 Semiconductor Material and Device Characterization: PR: EEL 3306 or C.I. Semiconductor material characterization resistivity, mobility, doping carrier lifetime, device properties, threshold voltage, interface charage of MOS devices, optical and surface characterization of films.

EEL 5353 Semiconductor Device Modeling and Simulation: PR: EEL 3307. Large signal and small signal model development for semiconductor diodes, BJTs, and MOSFETs. Parameter extraction, numerical algorithm, and SPICE simulation are included.

EEL 5355C Fabrication of Solid-State Devices: PR: EEL 3306. Fabrication of microelectronic devices, processing technology, ion implantation and diffusion, device design and layout. Laboratory includes device processing technology.

EEL 5357 CMOS Analog and Digital IC Design: PR: EEL 3306, EEL 4309. The objective of this course is to present the principles and techniques of the design of analog and digital circuits that are to be implemented in a CMOS technology.


EEL 5434 Microwave Circuits and Devices: PR: EEL 4436 or EEL 5555C. Planar transmission lines; passive microwave circuits; active circuit design using Gunn, IMPATT, FETS, RTDS, etc.; microwave integrated circuits.

EEL 5441 Introduction to Wave Optics: PR: EEL 4440 or PHY 4424 or C.I. Electromagnetic foundation of light waves as applied to reflection, diffraction, interference, polarization, coherence, and guided waves.

EEL 5446 Optical Systems Design: PR: C.I. Design principles of lens and mirror optical systems; evaluation of designs using computer techniques.

EEL 5448 Fundamentals of Optoelectronic Devices: PR: Graduate standing or C.I. Operation, methods of fabrication, applications, and limitations of various optoelectronic devices including quantum well semiconductor devices.

EEL 5450C Thin Film Optics: PR: PHY 4424 or EEL 4440 and EEL 5441 or EEL 5451. Principles of thin film optics and its applications in optical, electro-optical, and laser systems.

EEL 5451L Electro-Optics Laboratory: PR: EEL 4440 or EEL 5441 or C.I. Study of laboratory techniques for optical measurements and performance of measurements on electro-optic devices to determine operational characteristics.


EEL 5462C Antenna Analysis and Design: PR: EEL 3470 or equivalent. Fundamentals of antennas; dipoles, loops, arrays, apertures, and horns. Analysis and design of various antennas.

EEL 5517 EN 3(3,0)
Surface Acoustic Wave Devices and Systems: PR: EEL 3552C. Course discusses SAW technology which includes the physical phenomenon, transducer design and synthesis, filter design and performance parameters. Actual devices and communication systems are presented.

EEL 5542 EN 3(3,0)

EEL 5547 EN 3(3,0)

EEL 5555C EN 3(2,2)
RF & Microwave Communications: PR: EEL 3552C and EEL 4436C. Review of s-parameters, Microstrip-line circuits; amplifier and oscillator design, and construction mixers. Receiver design, noise, RF and microwave network and spectrum analyzers.

EEL 5563 EN 3(3,0)

EEL 5530 EN 3(3,0)

EEL 5704 EN 3(3,0)
Computer Aided Logical Design: PR: EEL 3342C or C.I. Analysis and synthesis of sequential logic circuits and systems. Data path and controller design using VHDL, a hardware description language.

EEL 5708 EN 3(3,0)

EEL 5741C EN 3(2,3)
Microcomputer-based Monitoring and Control Systems: PR: EEL 3342, EEL 4767C, or C.I. Machine language programming; software development aids; systems design; interfacing considerations.

EEL 5762 EN 3(3,0)

EEL 5771C EN 3(2,3)
Engineering Applications of Computer Graphics: PR: EGN 3420 or C.I. Computer graphics in engineering applications. Laboratory assignments.

EEL 5820 EN 3(3,0)
Image Processing: PR: MAP 3302, EGN 3420, EEL 4750 or C.I. Two-dimensional signal processing techniques; pictorial image representation; spatial filtering; image enhancement and encoding; segmentation and feature extraction; introduction to image understanding techniques.

EEL 5825 EN 3(3,0)
Pattern Recognition: PR: MAP 3302, EGN 3420. Graph-theoretic and syntactic methods of pattern analysis. Decision functions; optimum decision criteria; training algorithms; feature extraction; unsupervised learning; data reduction and potential functions.

EEL 5874 EN 3(3,0)
Expert Systems and Knowledge Engineering: PR: EEL 4872 or C.I. Introduction to expert systems in engineering. Expert systems tools and interviewing techniques. This course is hands-on and project oriented.

EEL 5881 EN 3(3,0)
Software Engineering I: PR: EGN 3420, EEL 4851 or C.I. Design, implementation, and testing of computer software for Engineering applications.

EEL 5891 EN 3(3,0)
Continuous System Simulation I: PR: EEL 3857 or C.I. Use of state-space techniques, numerical integration, and CSSL programs. Laboratory assignments.

EES 4111C EN 3(2,3)
Biological Process Control: PR: EES 4202C or C.J. and CR: ENV 4561. Engineering design, measurements and analysis of biological systems in environmental engineering for water management, bio-energy products, wastewater treatment, and others.
EES 4202C
Chemical Process Control: PR: EGN 3704. Engineering design, measurements, and analysis of chemical systems in environmental engineering to control treatment processes such as softening, coagulation, disinfection, scrubbing, neutralization, and others.

EES 4401C
Environmental Health: PR: EGN 3704. Topics and design examples in industrial hygiene, occupational and radiological health hazards, and pollution effects, such as those due to air noise, solid wastes, etc.

EES 5415C
Potable Water Treatment: PR: EES 4202C and 4111C. Engineering application of potable water chemistry involving coagulation, softening, filtration, corrosion, disinfection quality and drinking water.

EET 3025C
Electrical Circuits: PR: DC Circuits or EET 3085C, and MAC 1114, or C.I. Frequency domain and steady state analysis of electric circuits: RCL circuits, timed circuits, resonance and "Q," filters, magnetically coupled circuits, transformers, 3-phase circuits, power relationships.

EET 3085C

EET 3143C

EET 4518C
Linear Integrated Circuits: PR: EET 3716, or Consent of Coordinator. Applications of operational amplifiers, comparators, phase-locked loops, timers, regulators, other integrated circuits. Includes amplifiers, active filters, oscillators, differentiators and integrators.

EET 4329C

EET 4339C

EET 4349C
Electronic Communications II: PR: EET 4329C. Basic information theory, pulse and digital concepts, multiplexing, radar principles, TV systems. Technology of radiation and propagation. Fiber optics.

EET 4389C

EET 4548
Power Systems: PR: EET 3716. Analysis of electrical power systems and energy conversion. 3-phase load, per-unit quantities, circuit constants, rotating machines, 3-phase transformers, transmission lines, power flow, and fault calculations.

EET 4732

EET 4915C
Senior Design Project: PR: Electronics Engineering Technology senior entering anticipated graduation semester or C.I. Individual or group project involving project definition planning, development, test and evaluation. Progress reports, final oral presentation and final written report required.

EEX 2003
Teaching Exceptional Students: Development and practice of effective teaching and management strategies for elementary, middle, and secondary regular classroom teachers to use in working with mild disabilities in inclusion settings.

EEX 2010
Introduction to Special Education: Orientation to the education of children and adolescents with special needs in the schools. The course includes characteristics, trends, mainstreaming, and other issues.

EEX 2754
Parents as Educators: Develop parental awareness of their role in child development and school success. Attention given to social context of parenting and parents as advocates for children.
EEX 3102 Language Development and Communication Disorders: PR: Junior standing. Interdisciplinary approach to language development, identification and remediation of communication and language disorders.

EEX 3221 Assessment of Exceptional Students: Formal and informal assessment techniques for screening, placement, program planning, program evaluation, and monitoring of progress of exceptional students.

EEX 3241 Methods for Academic Skills for Exceptional Students: Teaching strategies, instructional materials, and monitoring techniques for children and adolescents with special needs. Must be taken with or before Internship I.

EEX 3243 Techniques for Exceptional Adolescents-Adults: CR: EEX 3241. A study of strategies, basic and functional content, career and vocational educational, and transition planning for adolescents and adults with special needs.

EEX 3450 Young Children With Special Needs: Provides an overview of the unique field of early childhood special education, its mission, and approaches to helping young children and their families.

EEX 4801 Introduction to Behavior Management: Study of management techniques based on applied behavioral analysis principles for modifying inappropriate behaviors and maintaining appropriate behaviors of exceptional students.

EEX 4753 Parent/professional Collaboration: The special educator’s role in working with families, regular educators, and other professionals in a collaborative relationship.

EEX 5061 Exceptional Children in the Schools: PR: Senior standing or C.I. Characteristics, definitions, educational problems, and appropriate educational programs for the exceptional children in schools.

EEX 5702 Planning Curriculum for Pre-kindergarten Children with Disabilities: Focus on curriculum planning, developmentally appropriate practices and implementation of individualized instruction for pre-kindergarten children with disabilities.

EEX 5750 Communication with Parents and Agencies: Presentation of methods of interacting with community agencies, supporting and collaborating with families, developing a case management system and facilitating program transition.

EGN 1006 Introduction to the Engineering Profession: PR: New students status or C.I. Overview of academic and professional requirements in various engineering disciplines.


EGN 3310 Engineering Analysis-Statics: PR:PHY 3048; CR: MAC 3312. Fundamental concepts of mechanics, including resultants of force systems, free-body diagrams, equilibrium of rigid bodies, and analyses of structures.

EGN 3321 Engineering Analysis-Dynamics: PR: EGN 3310; CR: MAC 3313. Kinematics and kinetics of particles and rigid bodies; mass and acceleration, work and energy, impulse and momentum.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Title</th>
<th>Prerequisites</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EGN 3343</td>
<td>EN 3(3,0)</td>
<td>Thermodynamics</td>
<td>MAP 3302, CR: EGN 3321</td>
<td>Work, heat, and energy transformations. Relation of properties. Laws, concepts, and modes of analysis common to all applications of thermodynamics in engineering.</td>
</tr>
<tr>
<td>EGN 3358</td>
<td>EN 3(3,0)</td>
<td>Thermo-Fluids-Heat Transfer</td>
<td>EGN 3310, MAP 3302</td>
<td>Introduction to first and second laws of thermodynamics, continuum fluid mechanics, and heat transfer for electrical, industrial, and computer engineering majors.</td>
</tr>
<tr>
<td>EGN 3365</td>
<td>EN 3(3,0)</td>
<td>Structure and Properties of Materials</td>
<td>CHS 1440 and MAC 3312</td>
<td>Atomic structure and bonding, crystal structure and imperfections, solidification, phase transformations, phase diagrams, heat treatment, mechanical &amp; electrical properties, materials characterization techniques.</td>
</tr>
<tr>
<td>EGN 3373</td>
<td>EN 4(4,0)</td>
<td>Principles of Electrical Engineering</td>
<td>PHY 3049, CR: MAP 3302</td>
<td>Fundamental laws of electrical circuits and circuit analysis; fundamentals of electronics and power systems.</td>
</tr>
<tr>
<td>EGN 3420</td>
<td>EN 3(3,0)</td>
<td>Engineering Analysis</td>
<td>High-level language or equivalent (FORTRAN preferred), MAC 3312</td>
<td>Engineering analysis and computation using FORTRAN; engineering applications of numerical methods including curve fitting, matrix operations, root finding, integration and plotting.</td>
</tr>
<tr>
<td>EGN 3613</td>
<td>EN 2(2,0)</td>
<td>Engineering Economic Analysis</td>
<td>ECO 2013 and Sophomore standing</td>
<td>Economic evaluation of engineering alternatives and design. Time value of money and economic impact of taxes, risk, depreciation.</td>
</tr>
<tr>
<td>EGN 3704</td>
<td>EN 2(2,0)</td>
<td>Engineering and the Environment</td>
<td>CHS 1440 and MAC 3312</td>
<td>Process engineering for air, energy, water, and land environment and the role of engineering in control of these environments.</td>
</tr>
<tr>
<td>EGN 3843</td>
<td>EN 3(3,0)</td>
<td>Systems Modeling</td>
<td>CGS 1060 or equivalent</td>
<td>Representation of man/machine systems through analytic and computer-based models. Case studies in the analysis and improvement of systems in industry, education, and government.</td>
</tr>
<tr>
<td>EGN 4033</td>
<td>EN 3(3,0)</td>
<td>Technology and Social Change</td>
<td>History/Humanities Sequence or C.I.</td>
<td>Review of existing theories of social change, analysis of the role of technology as related to social change, and study of contemporary events in technology and their possible impact on society.</td>
</tr>
<tr>
<td>EGN 4624</td>
<td>EN 3(3,0)</td>
<td>Engineering Administration</td>
<td>Senior standing</td>
<td>Engineering organization and administration; delegation of authority and responsibility; effective use of resources; project management; R and D planning; ethics in professional practice.</td>
</tr>
<tr>
<td>EGN 4703</td>
<td>EN 3(3,0)</td>
<td>Systems Analysis and Control</td>
<td>EGN 3343, 3353, 3373, MAP 3302</td>
<td>Analysis and design of process control systems, including first and second order systems and classical linear control theory.</td>
</tr>
<tr>
<td>EGN 4813</td>
<td>EN 3(3,0)</td>
<td>Science in History</td>
<td></td>
<td>Examination of the reciprocal relations of science and society from ancient to recent times.</td>
</tr>
<tr>
<td>EGN 4814</td>
<td>EN 3(3,0)</td>
<td>Technology in History</td>
<td>History/Humanities sequence or C.I.</td>
<td>Important developments in engineering and technology and their effect on society and our socio-economic processes.</td>
</tr>
<tr>
<td>EGN 4816</td>
<td>EN 1(1,0)</td>
<td>Turning Points in Engineering</td>
<td></td>
<td>Seminar covering major historical developments in engineering.</td>
</tr>
<tr>
<td>EGN 4818</td>
<td>EN 3(3,0)</td>
<td>Technology in North America</td>
<td>History/Humanities sequence or C.I.</td>
<td>Periods of significant technological change in North America, with emphasis on 19th and early 20th-century developments.</td>
</tr>
<tr>
<td>EGN 4823</td>
<td>EN 3(3,0)</td>
<td>Topics in Urban Development</td>
<td></td>
<td>Production, distribution, and consumption of various commodities, Engineering relationships to distribution, internal structure, function of urban developments, interrelationships of engineering, social, economic, and cultural phenomena.</td>
</tr>
<tr>
<td>EGN 4824</td>
<td>EN 3(3,0)</td>
<td>Energy and Society</td>
<td></td>
<td>Investigation of available energy forms; energy resources versus requirements in an increasingly complex technological society; possible solutions and future predictions.</td>
</tr>
<tr>
<td>EGN 4825</td>
<td>EN 3(3,0)</td>
<td>Environment and Society</td>
<td>C.I.</td>
<td>Environmental factors of importance to people's interaction with the environment; engineering and non-engineering measures to insure improvement and maintenance of environmental quality. Not for engineering students.</td>
</tr>
</tbody>
</table>
EGN 4830 EN 3(3,0)
Telecommunications: Telecommunications and its role in contemporary local, national, and international society.

EGN 4832 EN 3(3,0)
Computers, Cybernetics and Society: The effects of computers and the cybernetic revolution of the individual and society. Effects of positive and negative feedback on biological, technological and social systems. Computers and their interactions with the human system.

EGN 4844 EN 3(3,0)
Man and Machine: The influence and interrelationship of invention and technical progress on the evolution of social forms and institutions.

EGN 4933 EN 1(1,0)
Professional Engineering Practice: PR: Senior standing or C.L. Seminars dealing with current and future global issues within the engineering profession.

EGN 5025 EN 3(3,0)
Topics in Technological Development: PR: C.L. Selected topics in the technological development of western civilization including the weight-driven clock, steam engine, electric light, etc.

EGN 5720 EN 3(2,3)
Internal Combustion Engine Analysis and Optimization: PR: EGN 3343 or EGN 3358 or C.L. Internal combustion engine operating principles. Topics covered include engine design, and operating parameters, combustion, thermodynamics, induction flow, and basic mathematical models.

EGN 5840 EN 3(3,0)
Small Rocket Applications for Teachers: PR: Admission to Martin Marietta/UCF Academy. Earth and space environments, rocket propulsion, meteorological and environmental measurements, payload launch procedures, orbits and trajectories, safety, model rocket experiments, field trips, student science experiments.

EIN 3304 EN 3(3,0)
Introduction to Industrial Engineering and Management Systems: An overview of the issues important to the operation of an industrial or service facility.

EIN 3314C EN 3(2,2)

EIN 3354 EN 3(3,0)
Principles of Cost Engineering: PR: EGN 3613. This course is to provide engineers from all disciplines the background for the cost estimation of engineering systems throughout the product life cycle.

EIN 4116C EN 3(2,2)
Systems Analysis and Design: PR: ESI 4312; Senior standing. Systems analysis methodology, system requirements, specifications, system design methodology and decision support. Consulting skills and client interactions. Initiation of senior design projects.

EIN 4118C EN 3(2,3)

EIN 4214 EN 3(3,0)
Safety Engineering and Administration: Analysis of accidents in the industrial operating environment. Application of fault trees, OSHA requirements. Consideration of accident costs and organizational aspects of accident prevention.

EIN 4243C EN 3(2,2)
Human Engineering: PR: EIN 3314C; Senior standing. Man/machine systems; design and conduct of human engineering studies.

EIN 4305C EN 3(2,2)
Industrial Engineering Applications in The Service Industries. PR: EIN 3314C, ESI 4312, ESI 4254. Application of industrial engineering principles to improve the quality and productivity of service industries such as restaurants, banks, hotels, health care, etc.

EIN 4333C EN 3(2,3)
Industrial Control Systems: PR: ESI 4312, EIN 4118C. Decision rules in industrial environment including Forecasting, Production Planning, Scheduling, Inventory Control, and Project Monitoring. Laboratory assignments.

EIN 4364C EN 3(2,2)
Industrial Facilities Planning and Design: PR: EIN 3314C, EIN 4391C, EIN 4333C. Comprehensive design of industrial production systems, including interrelationships of plant location, process design, and materials handling. Laboratory assignments.

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EIN 4391C
Manufacturing Engineering: PR: EGN 3365. Introduction to manufacturing engineering, with emphasis on current and emerging technologies in metalworking and electronics.

EIN 4400
Principles of Concurrent Engineering: PR: EGN 3613, EIN 3304, or C.I. Elements of concurrent engineering and its application. Topics include quality function deployment and design for manufacturing and assembly.

EIN 4411C
Computer-Aided-Manufacturing: PR: EIN 4391C. Computer-Aided-Manufacturing (CAM) including computer numerical control (CNC), robotics, parts classification (GT) and manufacturing resource planning (MRP).

EIN 4891C
Industrial Engineering Senior Design Project: PR: EIN 4116C, Senior standing. Capstone design course; application of IEMS techniques to real-world design applications.

EIN 5117
Management Information Systems I: PR: C.I. The design and implementation of computer-based Management Information Systems. Consideration is given to the organizational, managerial, and economic aspects of MIS.

EIN 5247
Experimental Design & Taguchi Methods: PR: STA 3032 or ESI 4234. Introduction to Taguchi Concepts and Methodologies, use of design of experiments for quality design and improvement.

EIN 5248C
Ergonomics: PR: C.I. Applications of anthropometry, functional anatomy, mechanics, and physiology of musculoskeletal system concepts in the engineering design of industrial tools, equipments, and workstations.

EIN 5251
Human-Computer Interaction: Usability Evaluation: Usability paradigms/principles; cognitive walkthroughs; heuristic, review-based, model-based, empirical and storyboard evaluation; techniques; query techniques; laboratory techniques; and field study approaches.

EIN 5255
Training Simulator Engineering: Introduction to significant topics relative to the development and use of simulators for knowledge transfer in the technical environment.

EIN 5381
Engineering Logistics: Study of the logistics life cycle involving planning, analysis and design, testing, production, distribution, and support.

EIN 5388
Forecasting: PR: STA 5156. Industrial applications of forecasting methods with emphasis on microcomputer-based packages.

EIN 5415
Tool Engineering and Manufacturing Analysis: PR: EIN 4391 or C.I. Tool materials and design, tolerance technology, theory of metal cutting, and machineability.

EIN 5602C
Expert Systems in Industrial Engineering: Overview of basic concepts, architecture and construction of expert systems, in IE. Intelligent simulation training systems, case studies and problems. Laboratory exercises.

EIN 5936
Seminar in Industrial Engineering: Doctoral Research: PR: C.I. Essential topics for doctoral research including research areas, skills, funding, proposals, ethics, mentors, seminars, societies, conferences, presentations, interviewing, grants, and publishing.

EIN 5937
ST: Taguchi's Quality by Design: Taguchi methods for design of experiments and quality improvement.

ELD 4011
Intro to Specific Learning Disabilities: Nature and needs of students with learning disabilities to include history, theories, characteristics, definitions, assessments, issues, and application of effective teaching practices.
Program Planning for Specific Learning Disabilities: PR: Senior standing. Development of highly specialized techniques, curriculum materials, to be used with students with special learning disabilities.


Experimental Techniques in Mechanics and Materials: PR: EGN 3365, EGN 3331, or C.I. Metallurgy, heat treatment, mechanical testing, failure analysis, scanning electron microscopy, design of engineering materials.

Structure and Properties of Alloys: PR: EGN 3365C. Relation of properties to microstructure and applications of major ferrous and non-ferrous alloys.


Surface Science: PR: PHY 3049 and C.I. Methods of chemical and physical analysis of surfaces, with emphasis on ultra-high vacuum spectrosocopics utilizing electron, ion and photon probes.

Introduction to Ceramic Materials: PR: EGN 3365C. Uses, structure, physical and chemical properties, and processing of ceramic materials. Discussions will include recent developments for high technology applications.


Modern Characterization of Materials: PR: EMA 5104 or C.I. Techniques and operation of instrumentation (light, scanning, transmission, and auger microscopy) for the characterization of structure, defects, composition, and surfaces.

X-Ray Diffraction and Crystallography: PR: EMA 5104 or C.I. Theory and experimental techniques of x-ray diffraction of materials. Topics include the structure of crystalline solids, including lattices, point group and space group theory.


Laser Materials Processing: PR: EGN 3343 or EMA 5106 or C.I. Laser beam optics; laser-material interactions; laser heating, melting, vaporization. Plasma formation; laser surface treatment; welding, machining; laser material synthesis. Thin film deposition, crystal growth.

High Temperature Materials: PR: EMA 5104. Desired material properties for high temperature applications, physical metallurgy of such materials, corrosion, hot corrosion and oxidation properties, aero- and land-based gas turbine requirements.
EME 5051
Technologies of Instruction & Information Management: Theories and practices in utilizing instructional media and information technologies. Emphasis on new and emerging technologies and their effects on the school and media program.

EME 5052
Electronic Resources for Education: PR: EME 5051 or EME 6938 or C.I. Study and application of electronic resources available for education including techniques for locating, evaluating, and integrating them into the classroom.

EME 5054
Instructional Technology: A Survey of Applications: Applications of instructional technology in settings other than public schools. Survey of facilities, programs, and services in business, industry, religion, government, higher education, and medical settings.

EME 5056
Communication for Instructional Systems: Principles of written and oral communications for instructional technologists; development of assertiveness and interpersonal skills; conducting training programs for employees; creating hard copy materials.

EME 5057
Communication for Instructional Systems _ Application: PR: EME 5056. Applications of technology, communications theory, platform skills, and instructional design to the effective presentation of training programs and instruction.

EME 5208
Production Techniques for Instructional Settings: PR: EME 5051. Skills in producing instructional materials. Emphasis on graphic, audio, video, and photographic skills and the application of instructional and communication theories.

EME 5225
Media for Children and Young Adults: Survey of materials for children's and young adult informational and recreational needs; analysis, evaluation, and utilization of print and non-print materials.

EME 5408
Computer Applications in Instructional Technology. Techniques and skills for the use of computers for productivity and instruction by the instructional technologist.

EME 5810
Teaching and Learning with Technology: Overview of technologies for teaching and for learning. Practical strategies for using technology in the classroom. (May be repeated 3 times for credit.)

EML 3001C

EML 3034

EML 3101
Thermodynamics of Mechanical Systems: PR: EGN 3343. Applied thermodynamics, availability analysis, thermodynamics of reactive and non-reactive mixtures, thermodynamic relations of properties. Thermodynamic design analysis of complete mechanical systems.

EML 3262
Kinematics of Mechanisms: PR: EGN 3321. Graphical, mathematical, and computer-aided kinematics, analysis, and synthesis of basic mechanisms.

EML 3303C

EML 3312C
Feedback Control Design: PR: EGN 3321, MAP 3302. Mathematical Modeling of Dynamic Systems; Transient and Steady State Response; Root Locus Method, Frequency Response, Methods, Stability; Controller Design.

EML 3500

EML 3601
Solid Mechanics: PR: EGN 3310; CR: MAP 3302. Concepts of stress, strain, deflection; axial force, torsion, bending; combined stress, Mohr's circle, failure theories; design concepts, application to machines and vehicles.
EML3701 Fluid Mechanics I: PR: MAP 3302, EGN 3343. Basic principles of continuum fluid mechanics. Integral and differential forms of governing equations, fluid statics, dimensional analysis, measurements, internal flows.

EML 3804C Mechatronics: PR: EML 3312C. Integration of mechanical, electrical, and software engineering into the fundamental design process.

EML 4005 Design in Nature and Engineering: PR: EGN 3331, EGN 3343. Design for function and invention, in both engineering and nature: economy, form, beauty, energy, mechanism, structure, evolution in nature.


EML 4260 Dynamics of Machinery: PR: EML 3362, EML 4220. Critical speeds and response of flexible rotor systems, whirl, gyroscopic effects; balancing of rotating and reciprocating masses; cam dynamics.

EML 4264 Vehicle Dynamics: PR: EML 3262, 4220. Basic mechanics governing vehicle dynamics, performance and handling; acceleration, braking, ride, cornering, suspension, steering, rollover.

EML 4304C Measurements in Thermal Systems: PR: EML 3303C and EML4142. Design of measurement experiments in thermo-fluid systems with emphasis on projects conducted by student teams.

EML 4411 Mechanical Power Systems: PR: EML 3101. Analysis and design of large power generating systems and components, with emphasis on steam plants utilizing both chemical and nuclear fuels.

EML 4501C Engineering Design I: PR: EML 3500, EML 3701. Application of the design process in the team solution of a state-of-the-art problem. Aerospace, mechanical, thermo-fluid, or material problems are considered.

EML 4502C Engineering Design II: PR: EML 4501C. Continuation of the design process in the team building and testing of a prototype. A test plan and a test report are completed.

EML 4535C CAD/CAM: PR: EGN 1111C, EML 3034, EGN 3331; CR EAS 4200 or EML 3500. CAD/CAM/FEM computational technology. Basic concepts. Concurrent engineering approach to mechanical, thermal, and aerospace systems design and analysis. Use of in-house software.


EML 4703C Fluid Mechanics II: PR: EML3701. Continuation of Fluids I. External flows, fluid machinery, one-dimensional compressible flows. Experimental measurements and design problems.

EML 5060 Mathematical Methods in Mechanical and Aerospace Engineering: PR: MAP 3302. Vector field theory, generalized coordinates, complex variables, contour integration and LaPlace and Fourier transforms and inversions, variable coefficient ODE's and solution of PDE's for governing equations of heat transfer, ideal fluid flow, and mechanics.


EML 5106 Gas Kinetics and Statistical Thermodynamics:PR: EAS 4134 or EML 4703C. Molecular and statistical viewpoint of gases and thermodynamics; Boltzmann collision integral, partition functions, non-equilibrium flows. Applications in thermo-fluid systems.


Acoustics: PR: EML 4220 CR: EML5060. Elements of vibration theory and wave motion; radiation, reflection, absorption, and transmission of acoustic waves; architectural acoustics; control and abatement of environmental noise pollution; transducers.

Modal Analysis: PR: EML 4220, EML 4304C, EML 5060. Theoretical basis. Measurement techniques, excitation, transducers, data acquisition. Detailed data analysis, modal parameter extraction, curve-fitting procedures, Modelling.


Tribology: PR: EGN 3331, EGN 3353, EGN 3365C, or C.I. Principles of fluid film lubrication (liquid and gas, journal and thrust bearings), contact mechanics (rolling element bearings), design of bearings and load bearing surfaces, friction and wear of materials, tribotesting.


Turbomachinery: PR: EML 3101, EML4703 or EAS 4134. Application of the principles of fluid mechanics, thermodynamics, and aerodynamics to the design and analysis of steam and gas turbines, compressors and pumps.

Computer-Aided Design and Manufacture: PR: EGN 3331 and EML 3500 or C.I. Theory and application of computer algorithms for the synthesis, simulation, design and manufacture of mechanical and thermal systems.


Intro to Mental Retardation: Nature and needs of mentally handicapped students with emphasis on etiology, prevention, identification, and application of effective practices and recognition of trends and standards.

Curriculum Method and Materials for Retarded Persons: PR: Senior standing. Development of highly specialized techniques, curriculum and materials to be used with students with mental retardation.

Composition I: Expository writing with emphasis on effective communication and critical thinking. Emphasizing the writing process writing topics are based on selected readings and on student experiences. Course is graded with "A," "B," "C," "NC" and "F."
ENC 1102
Composition II: PR: ENC 1101 with a grade of "C" or better. Focus on extensive research in analytical and argumentative writing based on a variety of readings form the humanities. Emphasis on developing critical thinking and diversity of perspective. Course is graded with "A," "B," "C," "NC" and "F."

ENC 1102H
Honors Freshman Composition II: PR: ENC 1101H with a grade of "C" or better or C.I. Same as ENC 1102, with honors-level content. Note on Honors English Program: ENC 1101 and 1102 must be taken before enrolling in any English course numbered above 1102. Course is graded with "A," "B," "C," "NC" and "F."

ENC 2127
Grammar and Composition: A systematic study of grammar and mechanics to improve editing for clarity and accuracy in writing.

ENC 2290
Careers in Writing: An examination of career opportunities in technical writing, emphasizing industrial, commercial, and governmental opportunities.

ENC 3210
Writing for the Business Professional: PR: ENC 1102, Junior standing or C.I. Emphasis on clear expository writing of memoranda, reports, and articles in the student's declared field of business.

ENC 3241
Writing for the Technical Professional: PR: ENC 1102, Junior standing, or C.I. Instruction and practice in expository prose used in technical writing, layout and design of data, and translation of technical documents for the lay audience.

ENC 3283
Science and the Lay Reader: PR: ENC 3310, ENC 3311 or ENC 3341 or C.I. Analysis of lay scientific magazine articles and practice in scientific writing for the lay audience.

ENC 3310
Magazine Writing I: PR: ENC 1102. Intensive practice in description narration, exposition and argumentation; control of tone, mood, viewpoint, and level of diction. Applicable to article, essay, and short story writing.

ENC 3311
Advanced Expository Writing: PR: ENC 1102. Practice of expository writing directed to general reader.

ENC 3942
Journal Writing Practicum: An interdisciplinary practicum in journal writing as a literary genre and a means of self-expansion.

ENC 4215

ENC 4218
Graphics Capabilities for the Technical Writer: PR: ENC 4293; to be taken concurrently with ENC 4215. Study and preparation of visuals and graphics in technical writing and documentation; use of computer graphics; slides; transparencies; charts; graphs; drawings.

ENC 4365
Writing for the Computer Industry: PR: ENC 1102 and Junior standing, or C.I. This course addresses the special demands of writing for the computer industry.

ENC 4280

ENC 4293
Technical Documentation I: PR: ENC 3210 or 3341. Practice in translating highly technical information to organized documentation: hardware, software, military specifications. Theory of designing and organizing technical manuals. Preparation of proposals. Interview skills.

ENC 4294
Technical Documentation II: PR: ENC 4293. Practical application of editing theory to large ongoing projects from the student's particular field. Should be taken concurrently with ENC 4215.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENC 4295</td>
<td>Technical Documentation III: Designing, writing, and illustrating manuals, e.g., repairs, maintenance or users. Project supervised by a member of a student's major department or technical editor of a corporation.</td>
<td>AS 3(3,0)</td>
<td>PR: ENC 4294.</td>
</tr>
<tr>
<td>ENC 4341</td>
<td>Magazine Writing II: Structure and organization of articles, essays, profiles, and reviews, market analysis; data gathering. May be repeated for credit.</td>
<td>AS 3(3,0)</td>
<td>PR: ENC 3310 or C.I.</td>
</tr>
<tr>
<td>ENC 5214</td>
<td>Production and Publication Methods: Theory and practice of production and publication methods for technical writers.</td>
<td>AS 3(3,0)</td>
<td></td>
</tr>
<tr>
<td>ENC 5219</td>
<td>Graphics in Technical Writing: A study of the creation and editing of graphics in technical documents.</td>
<td>AS 3(3,0)</td>
<td></td>
</tr>
<tr>
<td>ENC 5261</td>
<td>Technical Writing, Theory and Practice: A study of major trends in technical communication theory and the practices this theory generates.</td>
<td>AS 3(3,0)</td>
<td></td>
</tr>
<tr>
<td>ENC 5267</td>
<td>Styles in Technical Writing: This course focuses on all the strategies necessary to write effective technical prose.</td>
<td>AS 3(3,0)</td>
<td></td>
</tr>
<tr>
<td>ENC 5306</td>
<td>Persuasive Writing: Theory and practice of writing persuasively.</td>
<td>AS 3(3,0)</td>
<td></td>
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<tr>
<td>ENC 5337</td>
<td>Modern Rhetorical Theory: With special attention to the rhetor-audience relationship, the course studies history and practice of modern rhetorical theory.</td>
<td>AS 3(3,0)</td>
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<tr>
<td>ENC 5344</td>
<td>Proposal Writing: Theory and practice of writing proposals.</td>
<td>AS 3(3,0)</td>
<td></td>
</tr>
<tr>
<td>ENC 5372</td>
<td>Theory and Practice in Composition: Senior standing or C.I. Intensive study of theories of composition, with practical experience in the writing laboratory and in composition classes.</td>
<td>AS 3(2,1)</td>
<td>PR: ENC 1102.</td>
</tr>
<tr>
<td>ENG 3010</td>
<td>Practical Criticism: Student evaluation of selected fiction, poetry, and drama through practical exercises in literary criticism.</td>
<td>AS 3(3,0)</td>
<td></td>
</tr>
<tr>
<td>ENG 3014</td>
<td>Theories and Techniques of Literature Study: LIT 2XXX (Introduction to Literature), Junior standing, or C.I. Techniques of analysis, theories of interpretation, and application of critical approaches to selected works.</td>
<td>AS 3(3,0)</td>
<td>PR: ENC 1102.</td>
</tr>
<tr>
<td>ENG 5009</td>
<td>Methods of Bibliography and Research: Bibliographical, library and systematic approaches to research at the graduate level in language and literature.</td>
<td>AS 3(3,0)</td>
<td></td>
</tr>
<tr>
<td>ENG 5018</td>
<td>Literary Criticism: Graduate standing or C.I. Historical survey of major critics from classical antiquity to the modern era.</td>
<td>AS 3(3,0)</td>
<td></td>
</tr>
<tr>
<td>ENL 2012</td>
<td>English Literature I: Beowulf to 1798.</td>
<td>AS 3(3,0)</td>
<td>PR: ENC 1102.</td>
</tr>
<tr>
<td>ENL 3021</td>
<td>English Literature II: From 1798 to 1914.</td>
<td>AS 3(3,0)</td>
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<tr>
<td>ENL 3951H</td>
<td>Orlando Shakespeare Festival Honors: Honors theory and practice of Shakespeare's art by performance-oriented study and participation in the Orlando Shakespeare Festival's pre-season activities and productions.</td>
<td>AS 3(3,0)</td>
<td>PR: ENC 1102.</td>
</tr>
<tr>
<td>ENL 3951</td>
<td>Orlando Shakespeare Festival: Involvement in theory and practice of Shakespeare's art by performance-oriented study and participation in the Orlando Shakespeare Festival's pre-season activities and productions.</td>
<td>AS 3(3,0)</td>
<td>PR: ENC 1102.</td>
</tr>
<tr>
<td>ENL 4101</td>
<td>English Novel: Analysis of major English novelists.</td>
<td>AS 3(3,0)</td>
<td>PR: ENC 1102.</td>
</tr>
<tr>
<td>ENL 4220</td>
<td>English Renaissance Poetry and Prose: The course will examine selected poetry and prose of Wyatt, Surrey, Sidney, Spenser, Marlowe, Raleigh, Daniel, Shakespeare, Chapman, Lyly &amp; others.</td>
<td>AS 3(3,0)</td>
<td></td>
</tr>
<tr>
<td>ENL 4240</td>
<td>English Romantic Writers: Study of English poets and essayists of the romantic period, including Wordsworth, Coleridge, Hazlitt, Lamb, Byron, Shelley &amp; Keats.</td>
<td>AS 3(3,0)</td>
<td>PR: ENC 1101, ENC 1102.</td>
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</tbody>
</table>
ENL 4253
The Victorian Age: Poetry: PR: ENC 1102. Poets of the Victorian period, including Tennyson, the Brownings, Arnold, Hopkins, the Rossettis, and Emily Bronte.

ENL 4262

ENL 4273

ENL 4311
Chaucer: PR: ENC 1102. The Canterbury Tales, Troilus and Criseyde, and other works.

ENL 4333
Shakespeare Studies: PR: ENC 1102. Reading, analysis, and discussion of Shakespeare's plays. May be repeated for credit.

ENL 4341
Milton and His Age: PR: ENC 1102. Paradise Lost, Paradise Regained, Samson Agonistes, shorter poems and selected prose.

ENL 4320
18th Century Studies: PR: ENC 1102. Reading, analysis, and discussion of literature in English: 1660-1880. May be repeated for credit.

ENL 5226
English Renaissance Poetry and Prose: PR: Senior standing or C.I. The course will examine selected poetry and prose of Wyatt, Surrey, Sidney, Spenser, Marlowe, Raleigh, Daniel, Shakespeare, Chapman, Lyly, and others.

ENL 5237
Eighteenth Century Studies: Reading, analysis, and discussion of literature in English: 1660-1880.

ENL 5335
Studies in Shakespeare: PR: Senior standing or C.I. A selection of representative plays, with emphasis on Shakespeare's development as an artist: aesthetics of dramatic literature.

ENL 5347

ENS 1441
Advanced ESL Writing: PR: TOEFL Score of 500+ and completion of ENC 0020 or equivalent. Advanced work in writing for non-native speakers to overcome problems encountered in mastering academic English, not remedial composition.

ENV 4112C
Air Pollution Control Design: PR: ENV 4121C. Project course on design of air pollution control equipment and systems.

ENV 4121C
Air Pollution: PR: EGN 3704, CWR 3201. Sources, causes, and effects of air pollution. Engineering design, analysis, and modeling for the control of air pollution.

ENV 4300C
Solid Waste Facility Design: PR: ENV 4341. Project course on design of a municipal solid waste landfill.

ENV 4341
Solid Waste Management: PR: EGN 3704 or C.I. Engineering design, planning, and analysis problems associated with storage, collection, processing, and disposal of solid and hazardous wastes.

ENV 4561
Environmental Engineering - Process Design: PR: EGN 3704 and CWR 3201. Water treatment and wastewater treatment design considerations with effluent and sludge handling, treatment, and disposal.

ENV 4562C
Environmental Engineering Systems Design: PR: ENV 4561, CWR 4202C. Project course on design of water and wastewater treatment plants.

ENV 4563

ENV 5071

ENV 6116C
Air Pollution Monitoring: PR: ENV 4121C or C.I. Air Pollution sampling techniques, equipment, and monitor siting. Emphasis on theory and direct applications in air pollution monitoring.
Characterization of Hazardous Waste Sites: PR: CWR 4101C and ENV 4341 or C.I. Practical and comprehensive methods of hazardous waste site characterization to determine site properties, contamination type, magnitude and risk, and remedial actions.

Outdoor Noise Control: PR: C.I. Community noise evaluation and control, legislative standards, instrumentation and measurement, abatement methods, and noise modeling.

Sludge Management Operations in Environmental Engineering: PR: ENV 4561. Theory and design of sludge management operations and processes in environmental engineering, including stabilization dewatering and ultimate disposal.


Physical and Sociological Implications of Handicapping Conditions: Overview of physical and sociological factors which may contribute to delayed learning or physical impairments in the exceptional populations. Physical interventions and first-aid practices are examined.


Secondary School Curriculum Improvement I: PR: Regular Certificate or C.I. Secondary School self studies for curriculum projects, accreditation reports, or staff development.


Quality Engineering: PR: STA 3032. Basic concepts and techniques of quality control; applications of statistics in industrial research; design of quality assurance systems; reliability engineering.


Quantitative Techniques in Industrial Engineering: PR:EIN 4634 and STA 3032. Extension of EIN 4634 and STA 3032, with primary emphasis on O.R. and statistical applications to industrial engineering problems.

Systems Simulation: PR: STA 3032, high level programming language. Methods and procedures for simulating large-scale systems with digital computers. High level programming and simulation languages are used.

Reliability Engineering: PR:ESI 4234, or equivalent or C.I. Reliability theory and modeling approaches. Topics include: failure data analysis, maintainability, reliability standards (DOD), software reliability, reliability in design, and electronic systems reliability.

Operations Research: PR: STA 3032. Methods of operations research, including formulation for models and derivation of solutions; linear programming, network models queuing theory, simulation, and nonlinear optimization techniques.

Military Applications of Operations Research: PR: ESI 4312 or ESI 5316. Course covers application of operations research models to military planning and operations. Use of optimization, simulation, probability, and statistical modeling to evaluate force alternatives.

Risk Assessment and Management: PR: STA 5156 or STA 3032. Problems and complexities involved in risk assessment and management. Selected methodologies are illustrated through realistic applications in engineering and the sciences.
ESI 5419C
Engineering Applications of Linear and Nonlinear Optimization: PR: ESI 4312 or ESI 5316. Course covers linear and nonlinear optimization applications in production planning, staffing, engineering design, distribution networks, and other engineering areas. Focuses on practicing or analysts.

ESI 5451
Network Based Project Planning, Scheduling and Control: PR: ESI 4312 or ESI 5316. Probabilistic and deterministic approaches for planning, scheduling, and controlling complex, large scale projects. PERT, CPM, resource leveling, risk analysis.

ESI 5531
Discrete Systems Simulation: PR: STA 3032, CGS 3422. Methods for performing discrete systems simulation, including network modeling will be treated.

EST 4502C
Metrology and Instrumentation: PR: ETG 3541 or equivalent; EET 3085C or equivalent; and MAC 3253 or equivalent. An introduction to the basic concepts and terminology of metrology and instrumentation. Theory, procedures and techniques essential to industrial measurement and laboratory practice are covered.

ETC 4241C

ETC 4242
Construction Contracts and Specifications: The role of construction contracts, architectural specifications, product specifications, industry standards and building codes in the process of building construction.

ETC 4414C

ETC 4415C

ETG 3541
Applied CADD: PR: Engineering Drawing and some CADD background. This course in computer-aided drafting/design provides the student with the opportunity to approach detailed and intricate drafting/design problems from a computer perspective.

ETG 3542
Materials and Processes: PR: MAC 1104 and MAC 1114 or equivalent; Chemistry. A study of fundamental properties of materials. Current industrial practices in founding, forming, joining and shaping processes.

ETG 3651C
Computer Applications: PR: Computer programming. Application of high-level program packages to solve problems in industrial practices.

ETI 3421
Product Design: Principles of layout and dimensions for production. Consideration of design factors, standards, specifications, and codes, with emphasis on productability.

ETI 3440
Technical Sales: PR: Junior standing or C.I. Application of technical knowledge to sales and service. Relationship of technical sales organization to production, customers, and competitors.

ETI 3690

ETI 3671
Senior Design Project: PR: ETG 3541, EST 4502C, ETG 4530C or C.I. Engineering Technology senior within 18 semester hours of graduation. Supervised individual or group projects involving project definition, planning, development, testing, and evaluation. Progress reports and a final oral presentation and formal written report are required.

ETI 3690
Materials and Processes: PR: MAC 1104 and MAC 1114 or equivalent; Chemistry. A study of fundamental properties of materials. Current industrial practices in founding, forming, joining and shaping processes.

ETI 3671
Product Design: Principles of layout and dimensions for production. Consideration of design factors, standards, specifications, and codes, with emphasis on productability.

ETI 3690
Computer Applications: PR: Computer programming. Application of high-level program packages to solve problems in industrial practices.

ETI 3671
ETI 4110

ETI 4186
Applied Reliability: PR: ETI 4110. Practical application of reliability concepts and analysis applicable to the design, production and logistics phases of systems and system components.

ETI 4205
Applied Logistics: PR: ETI 4110 or C.I. Introduction to logistics. Emphasis on practical applications. Includes systems engineering, cost/systems effectiveness, reliability, maintainability, system functional analysis, logistic support analysis, life cycle cost analysis.

ETI 4522C

ETI 4635
Technology Administration: PR: ETI 3671 and Junior standing. Techniques of applying management principles to professional positions held by Engineering Technologists. Management functions of planning, organizing, motivating, and controlling, production, sales, and service.

ETI 4640
Process Planning and Work Measurement: PR: MAC 1104 and COP 3200 or equivalent. Scheduling techniques (PERT), (CPM), are presented. Time Study Methods, Work Sampling and MTM are covered.

ETI 4661C
Applied Facilities Planning and Design: PR: ETI 3421, engineering drawing and senior standing. The design of manufacturing facilities and material handling systems.

ETI 4700
Occupational Safety: PR: Junior standing. Accident prevention and the operation of an industrial safety program. Basic requirements of the Occupational Safety and Health Act standards.

ETM 4220
Applied Energy Systems: PR: MAC 3253 or MAC 3311; Chemistry, College Physics. Introduction to energy, work, and thermal systems and processes. Applications of heat energy with emphasis on solar energy.

ETM 4232C
Applied Heat Transfer: PR: ETG 3541 or equivalent, MAC 3253 or MAC 3311. An introduction to the basic concepts and applications of conduction, convection and radiation heat transfer. Basic energy balances and their applications are emphasized. Study state and transient phenomena are evaluated, including numerical solutions.

ETM 4331C
Applied Fluid Mechanics: PR: MAC 3253 or MAC 3311; PHY 3053C or equivalent. An introduction to the basic concepts of hydrostatics and hydrodynamics covering fluid statics, flow of ideal fluids, continuity of mass, impulse and momentum principles, conservation of energy, flow of fluid in pipes, etc.

ETM 4403C

ETM 4512C

ETM 4755
Applied Air Conditioning: PR: ETM 4331C. Analysis of body comfort, psychometrics, heating and cooling load, specification of air conditioning systems, air distribution systems and system piping requirements.

EUH 2000
Western Civilization I: A survey of western civilization from ancient to 1648.

EUH 2000H
Honors Western Civilization I: Same as EUH 2000 with honors-level content.

EUH 2001
Western Civilization II: PR: EUH2000 or C.I. A survey of western civilization from 1648 to present. May be taken before EUH 2000.

EUH 2001H
Honors Western Civilization II: Same as EUH 2001 with honors-level content.

EUH 3122
Medieval Society and Civilization: PR: EUH2000 and 2001 or C.I.
EUH 3142
Renaissance and Reformation: PR: EUH 2000 and 2001 or C.I. Influence of Renaissance humanism on arts, letters, and politics; Luther and Protestantism; the Catholic Counter-Reformation and the Thirty Years' War.

EUH 3235
Renaissance and Realism: PR: EUH 2000 and 2001 or C.I. Napoleon and nationalism; new ideas, conservation; liberalism, romanticism, republicanism and socialism; urbanization, technology and mass culture, religious decline; Realpolitik, racism, imperialism, and militarism.

EUH 3242
Modern Europe and the First World War; A survey of the impact of the democratic institutions, education, transportation, housing, health, mass communications, entertainment, women, and warfare.

EUH 3281
Second World War and Rebirth of Europe; PR: EUH 2000 and 2001 or C.I. Origins of World War II; Hitler's "New Order," and resistance movements; Cold War; de-Stalinization of Russia; Sovietization of East Central Europe; Western reconstruction, and prosperity.

EUH 3411

EUH 3561
War and Society: Evolution of weapons, tactics, strategy; role, social status, recruitment of soldiers; influence of military on governments; and international efforts to preserve peace.

EUH 4284
Fascism and the Totalitarian Dictatorships: PR: EUH 2000 and 2001 or C.I. Totalitarian ideologies, institutions, and practices in Lenin's and Stalin's Russia. Mussolini's Italy, and Hitler's Third Reich; fascist movements in the non-totalitarian states.

EUH 4465
Hitler's Third Reich: PR: EUH 2000 and 2001 or C.I. German nationalism and militarism; World War I and Versailles Treaty; the Weimar Republic and the rise of the Nazis; Second World War, division and recovery.

EUH 4500
English History to 1485: PR: EUH2000 and 2001 or C.I.

EUH 4501
English History: 1485-1815: PR: EUH 2000 and 2001 or C.I.

EUH 4502
British History: 1815-Present: PR: EUH2000 and 2001 or C.I.

EUH 4571
History of Russia to 1801: PR: EUH 2000 and 2001 or C.I. Kievian State; Mongol Yoke; Development of Muscovite Expansionism and Absolutism; Time of Troubles; Westernization of Russia under Peter I and Catherine; Role of Orthodox Church.

EUH 4574
History of Russia: 1801-1917: PR: EUH 2000 and 2001 or C.I. Alexander I; Napoleonic Invasion, Revolutionary Movement; Russian Policy toward Central Asia and China; Great Reforms; Russo-Japanese War; Revolution of 1905; Constitutional Period, Triple Entente.

EUH 4576

EUH 4577
European Great Powers: 1815-1914: PR: EUH 2000 and 2001 or C.I. Congress of Vienna, Metternich's system Crimean War, unifications of Italy and Germany, the Bismarckian era, the alliance systems, and the outbreak of World War I.

EUH 4621

EUH 5546
Colloquium: British History: PR: Graduate status. Selected topics in British history. May be repeated for credit when content is different. There is no standard syllabus because content is different with each offering.

EUH 5579
Colloquium in Soviet Russia: PR: Senior standing or C.I. Reading and class discussion of the literature on selected topics in Russian history, 1911-present.

EUH 5595
Colloquium in Czarist Russia: PR: Senior standing or graduate status. Selected topics on the literature of Russia under the Czars prior to 1917.
EUH 5608
Colloquium European Intellectual History: PR: Senior standing or C.I. Reading and class discussion of the literature on selected topics of European intellectual history.

EVS 4796
Air Pollution Control: Fundamental techniques applicable to analyzing composition and sources of pollutants, measuring concentrations, and controlling emissions. Air pollution control programs, laws, rules, and regulations.

EVT 3062
Professional Role of the Vocational Teacher: PR: EVT 3371 or C.I.

EVT 3312
Course Construction in Health Occupations Education: PR: EVT 3365 or C.I. Planning and preparation of materials, managing the laboratory and involvement in appropriate Vocational Student Organizations. Clinical instruction related to vocational education and industry training.

EVT 3365
General Methods/Testing Evaluation in Vocational Education: General teaching methods, testing and evaluation. Techniques specific to Vocational Education and Industry Training.

EVT 3387
Evaluation of Vocational Instruction: PR: EVT 3371 or C.I. Study, practice, and achievement of competency in assessing student cognitive, affective, and psychomotor performance in vocational education.

EVT 3571
Course Construction in Industrial Education: PR: EVT 3365 or C.I. Planning and preparing instructional materials, organizing and managing the Industrial Education laboratory, and involvement in VICA.

EVT 3502
Special Needs of Vocational Students: PR: EVT 3365 or C.I. Achievement of teacher competency in meeting the special needs of the handicapped, culturally different, slower learner, those with basic skill deficiencies, and those in non-traditional programs.

EVT 4066

EVT 4169
Curriculum Development Techniques for Industry Training: The practical application of fundamental knowledge, important skills, alternative analysis methods, and the critical elements of the trainers analysis tasks.

EVT 4368
Advanced Teaching Techniques for Vocational Education: PR: EVT 3365 or C.I. Study, practice, and achievement of techniques including cooperative learning, simulation, instructional modeling and evaluation of instructional effectiveness.

EVT 5260
Cooperative Programs in Vocational Education: PR: Regular Certificate or C.I. Study of cooperative vocational programs and achievement of competencies needed to establish, manage, and coordinate co-op program activities in all vocational areas.

EVT 5315
Applied Clinical Teaching Techniques in Vocational Education: PR: Regular Certificate or C.I. Study and practice of clinical teaching methods, development of student performance assessment instruments, planning clinical learning experiences and record keeping.

EVT 5817
Management of Vocational Programs: PR: Rank III Certificate or C.I. Study and achievement of selected competencies needed by vocational teachers, supervisors, and local administrators in the management of vocational education programs in the schools.

EXP 3204C

EXP 3304

EXP 3404
Basic Learning Processes: PR: PSY 2013 and PSY 3214. Theories and research findings from basic laboratory investigation of learning phenomena. Lecture/Lab.

EXP 3513C

302
EXP 5208  Sensation & Perception: PR: C.I. A study involving the human information processing with regard to physical and psychological variables in sensory and perceptual phenomena.

EXP 5256  Human Factors I: Survey of human factors literature. Introduction to topics including human capabilities and human interfaces with human-machine systems.

EXP 5445  Psychology of Learning and Motivation: PR: DEP 5057 or C.I. Examination of theories and research concerning the acquisition and retention of behavior, as well as motivational factors which influence learning and behavior.

FLE 4314  Foreign Language Methods K-6: Provides the theory and methods of teaching foreign languages in the elementary school (FLES) for pre- and in-service teachers.

FIL 3006  Film Appreciation: PR: None. An analysis of basic elements of cinematic style including film direction, editing, cinematography, art direction and sound.

FIL 3100  Introduction to Scriptwriting: Majors only. PR: Admission to Film program. Rudiments of scriptwriting, including visual storytelling, story structure, character, dialogue, and introduction to scriptwriting software.

FIL 3200  Introduction to Film Production: Majors only. Introduction to production utilizing film equipment. Basic technical and aesthetic aspects of production.

FIL 3231  Introduction to Computer Animation: Majors only. PR: FIL 3242. Introductory computer graphic techniques utilizing microcomputer systems. Techniques include basic paint systems, color cycling and 2D animation.

FIL 3232  Intermediate Computer Animation: PR: FIL 3231. Focus on 3D computer modeling and animation systems. Hands-on exercise on the type of high-end animation systems used in the film industry.

FIL 3242  Introduction to Cell Animation: PR: Major status. Introduction to traditional cell animation. Drawing skills required.

FIL 3300  Film Documentary: Majors only. The uses and analysis of the non-fiction film.

FIL 3309  Women in Film: PR: Junior standing. A critical examination of how cinematic images of women affect cultural perceptions and an overview of historically significant women filmmakers and related sociopolitical issues.

FIL 3400  History of Motion Pictures: The history of motion pictures as art and industry; from 1895 to the present.

FIL 3410  History of Animated Films: Survey from early animators to the development of the cartoon industry. Television animation included.

FIL 3503  Film Theory: PR: Major status only. A historical survey of the major film theories, Munsterberg through Metz.

FIL 3521  French Film: The study of French cinema as an art form and the key role of the director. Films are analyzed from structural, social, economical, and historical perspectives with attention to their relationship with French literature. Taught in English.

FIL 3522  German Film: PR: C.I. Exploration of the form and context of German film during different time periods in relation to other aspects of culture and to sociopolitical structures at the time.

FIL 3922  Film Colloquium: Majors only. PR: Admission to the film program. A series of lectures, films and forums designed for students in the film program. The class is team taught by film faculty and guest speakers from the film industry. S/U Grade ONLY. Course may be repeated.

FIL 4103 AS 3(2,3)
Advanced Scriptwriting: Majors only. PR: FIL 3100. Advanced writing workshops, principles and methods of adaptation and reader's coverage.

FIL 4104 AS 3(2,3)
Scriptwriting Workshop: Majors only. PR: FIL 3100. Writing workshop for experienced scriptwriters, cold readings, preparing calling card script, marketing scripts and funding sources.

FIL 4110 AS 3(2,3)
Comedy Writing: PR: None. Film majors or C.I. Intensive workshop in comedy writing for film and television. Work on story pitches, outlines, and complete scripts for 30-minute television series.

FIL 4201 AS 3(2,4)
Intermediate Film Production: Majors only. PR: FIL 3200. Advanced exploration of the aesthetic and technical facets of filmmaking.

FIL 4202 AS 3(2,4)
Advanced Film Production: Majors only. PR: FIL 3200, 4201. Intensive tutorial guidance, instruction and evaluation of final film projects from initial concept through production.

FIL 4203 AS 3(2,4)
Film Production Workshop: Majors only. PR: FIL 3200, 4201. Intensive tutorial guidance, instruction and evaluation of final film projects from post-production through release print.

FIL 4208 AS 3(3,0)
Film Directing: Majors only. PR: FIL 4201. Principles and practice in directing narrative and documentary motion pictures.

FIL 4210 AS 3(2,4)
Cinematography: Majors only. PR: FIL 3200. Advanced principles and practices of cinematography.

FIL 4220 AS 3(3,0)
Art Direction for Film: Majors only. PR: FIL 3200, FIL 4201. Analysis of visual structure of film. Specific problems in art direction.

FIL 4230 AS 3(2,4)
Intermediate Cell Animation: Majors only. PR: FIL 3242. Production from storyboard to composite print.

FIL 4233 AS 3(2,4)
Advanced Computer Animation: Majors only. PR: FIL 3231 and FIL 3232. Advanced 3D modeling and animation techniques. Working in small production teams, students will create short animated segments using a high-end 3D animation system.

FIL 4234 AS 3(2,4)
Computer Animation Workshop: Majors only. PR: FIL 3231, FIL 3232, FIL 4233, or C.I. A production level course in computer animation that emphasizes all phases of the commercial production process, including storyboard, budgets, client relations, and post-production.

FIL 4241C AS 4(3,2)
Special Problems in Film Design: A series of exercises in craft, techniques, and design for film production, including animation.

FIL 4250 AS 3(1,3)
Post-Production Workshop: Majors only. PR: FIL 4201. This class will provide students with a thorough understanding of the process of producing in film and posting on state of the art equipment.

FIL 4293 AS 3(2,4)
Advanced Cel Animation: Majors only. PR: FIL 4230. Production from storyboard to composite print from pre-recorded sound track.

FIL 4294 AS 3(2,4)
Cell Animation Workshop: Majors only. PR: FIL 4293. Production from storyboard to composite print from pre-recorded sound track.

FIL 4504 AS 3(2,2)
Motion Picture Genre/Aesthetics: Majors only. PR: FIL 3503. Analysis and evaluation of films; major genres, directors, styles, or periods considered in depth.

FIL 4600 AS 3(3,0)
The Film Producer: Majors only. PR: FIL 4208. The role of the producer is examined in the context of theatrical film.

FIL 4601 AS 3(3,0)
Production Management: Majors only. PR: FIL 3200. Reproduction, budgeting, script breakdown, construction of production boards, scheduling, location scouting, and crew procurement.

FIL 4942 AS 3(2,5)
Animation Workshop: Majors only. PR: FIL 4230, FIL 4231. An intensive study of various film animation techniques under the tutelage of professional animators.
FIN 3100  
Personal Finance and Investments: PR: Junior standing. Fundamentals of managing and investing one's money and acquiring, safeguarding, and disposing of one's assets. Not usable for credit by Finance majors.

FIN 3303  

FIN 3403  
Business Finance: PR: ACG 2021, ACG 2071, (or ACG 2023), ECO 2013 and ECO 2023. With the balance sheet as a reference point, this course provides an introduction and overview of the acquisition, financing, and management of business assets.

FIN 3404  
Intermediate Corporate Finance: PR: FIN 3403. In-depth study of the principles of corporate finance. Investment, financing, and capital decisions are examined.

FIN 3453  
Financial Models: PR: FIN 3403, PR or CR: FIN 3404. Mathematical models applied specifically to financial problems, including those models suitable for representation and solution on computers.

FIN 3504  

FIN 4127  
Employee Benefits and Retirement Planning: PR: FIN 3403. This course considers the process of establishing specific financial objectives at various stages of life and how those objectives can be reached.

FIN 4224  
Management of Financial Institutions: PR: FIN 3303 and FIN 3403. Analysis of management policies of financial institutions, including asset, liability, and capital management. The economic and regulatory influence on competition is considered.

FIN 4424  
Advanced Topics in Financial Management: PR: FIN 3404 and FIN 3453. Advanced study in financial management. Topics include capital budgeting, financial structure, and capital decisions. Case studies used extensively.

FIN 4503  
Speculative Financial Markets: PR: FIN 3303 and FIN 3504. Study of options, futures, forward, and other speculative markets. Investments traded in these markets are examined analytically. Pricing and hedging models are considered.

FIN 4514  
Portfolio Analysis and Management: PR: FIN 3303 and FIN 3504. Portfolio and capital market theory in the determination of rational investment policies. Risk analysis, portfolio analysis, and evaluation techniques.

FIN 4604  
International Financial Management: PR: FIN 3303, FIN 3404 and FIN 3504. Analysis of the foreign financial methods and investment, currency futures market, capital budgeting, cash management, examination of Eurocurrency market and international bond markets.

FIN 5405  
Financial Concepts: PR: Acceptance into the graduate program, ACG 5005 and ECO 5005 and ECO 5415 or equivalents. Effects of financial decisions upon the firm, interrelationships of these effects and alternatives available to financial managers in making these financial decisions.

FLE 3063  
Foreign Language as Human Behavior: PR: Or CR: LIN3010 or C.L. Nature of language, language learning, and teaching basic skills. Weekly laboratory.

FLE 4314  
Foreign Language Methods K-6: Provides the theory and methods of teaching foreign languages in the elementary school (FLES) for pre- and in-service teachers.

FLE 4360  
Foreign Language Instructional Programs: EDG 4321. Objectives for curriculum and methods and materials for teaching foreign language in middle grades and high school.

FOL 3730  
Romance Philology: The study of the major Romance Languages and their origins as they developed from Classical and Medieval Latin to their linguistic influences such as Arabic and Provencal.

FRE 1005  
French Diction: This course is especially designed for music and voice students, with an emphasis on musical terms, French songs, and opera libretti.
FRE 1120  
Elementary French Language and Civilization I: Introduces the student to French culture through the major language skills: listening, speaking, reading and writing. Open only to students with no experience in the language.

FRE 1121  
Elementary French Language and Civilization II: PR: FRE 1120 or experience with this language. Continuation of FRE 1120.

FRE 2200  
Intermediate French Language and Civilization I: PR: FRE 1121 or equivalent. Development of language skills and cultural knowledge at the intermediate level.

FRE 2201  
Intermediate French Language and Civilization II: PR: FRE 2200 or equivalent. Continuation of FRE 2200 with emphasis on French civilization.

FRE 2240  
Intensive French Conversation: PR: One year of French or equivalent. Practical use of the language, leading toward fluency and correctness in speaking.

FRE 2270  

FRE 3244  
French Conversation: PR: FRE 2201 or equivalent. Development of skills in conversation and comprehension.

FRE 3410  
Advanced Oral French: PR: 2 years college level French or equivalent. Intensive practice of French conversation using video and filmstrips as stimulus of individual and group discussions.

FRE 3420  
French Composition: PR: FRE 2201 or equivalent. Development of skills in composition. This course may be repeated for credit. When repeated, credit will apply to general electives only.

FRE 3423  
Advanced French Grammar: PR: 2 years of college level French or equivalent. Intensive oral drills and exercises make students practice and review the grammatical structures which are necessary for correct and cultural French speech.

FRE 3440  
Business French I: PR: Three semesters of French language. Introduces vocabulary and terminology in various French business activities, as well as standards, procedures, and practices of the French business world.

FRE 3780  
Advanced French Phonetics and Diction: PR: 2 years of college level French or equivalent. Intensive exercises in French phonetics and diction with both prose and poetry with particular emphasis on difficulties for speakers of English.

FRE 4421  
Advanced French Conversation: PR: FRE 3244. Advanced conversation on directed topics from various disciplines. Literature, art, psychology, philosophy, music, business, and the sciences.

FRE 4422  
Advanced French Composition: PR: FRE 3420. Readings and written imitations of modern literary styles in the form of themes, sketches, poems, and original stories.

FRE 4500  
French Civilization and Culture: PR: FRE 3424 or FRE 3420. A survey analyzing development of key elements of French life: its historical, artistic, intellectual, scientific, spiritual contributions to the world via readings, lectures, films, and other media. Conducted in French.

FRE 4503  
Quebecois Civilization: PR: 2 years of college level French or equivalent. An introduction to the main epochs and events in the history of the French civilization in North America with particular emphasis on Quebec.

FRE 4780  
French Phonetics and Diction: PR: FRE 3244 or equivalent. French phonology, with emphasis on phonic groupings.

FRW 3100  
Survey of French Literature I: PR: FRE 2201 or equivalent. Main literary currents and works from the Middle Ages through the 18th century.

FRW 3101  
Survey of French Literature II: PR: FRE 2201 or equivalent. Main literary currents and works of the 19th and 20th centuries.
FRW 3370  AS 3(3,0)
Short Stories of 18th, 19th and 20th Centuries: PR: FRE 2201 or equivalent. Selected readings designed to increase reading speed and develop analytical abilities. Authors include: Voltaire, Maupassant, Flaubert, Camus, and others.

FRW 3740  AS 3(3,0)
The French Literature of Canada: PR: FRE 2201 or equivalent. A survey of the French literature of Canada from the late 19th century to the present, with particular emphasis on the novel and short story.

FRW 4281  AS 3(3,0)
20th Century French Novels: PR: FRW 3100 or FRW 3101 or equivalent. Contemporary French Novel. Will focus on post-war authors, both traditional and avant-garde, such as Bazin, Beckett, Butor, Camus, Mauriac, Malraux and Sartre.

FRW 4310  AS 3(3,0)
Seventeenth Century French Theatre: PR: FRW 3100. Corneille, Racine, and Moliere. A study of the lives and principal works of the authors.

FRW 4324  AS 3(3,0)
20th Century French Drama: PR: FRW 3100 or FRW 3101 or equivalent, or C.I. Course will concentrate on traditional and avant-garde theater after WWII, such as the works of Beckett, Camus, Claudel, Ionesco, and Sartre; different literary approaches will also be used.

FRW 4440  AS 3(3,0)

FRW 4532  AS 3(3,0)

FRW 4552  AS 3(3,0)

FRW 4820  AS 3(3,0)
Stylistics: PR: FRE 3420 or equivalent. An intense study of textual criticism. An examination of the relationship between language and literature; explications and linguistic analysis of literary texts.

FSS 3120  BA 3(3,0)
Quantity Food Purchasing: PR: HFT 4250C or C.I. The purchasing procedures, specifications, and controls of food products in the hospitality industry.

FSS 3223  BA 3(3,0)
Hospitality Enterprises Management: PR: Junior Standing. Acquaint students with presentation, interpretation, and analysis of hospitality financial reports. Present principles of food, beverage, and labor cost controls. Explore hospitality industry MIS.

FSS 3232C  BA 3(1,3)
Intermediate Techniques of Food Production: PR: HFT 4250C. An advanced food production course which provides the student the opportunity to develop skills in pantry, garde manager, garnishing, and convenience foods and services. Laboratory class.

FSS 3301  BA 3(3,0)

FSS 4135  BA 3(3,0)
Contract Food Service Management: PR: HFT 3540. The organizational and management characteristics of the noncommercial contract and recreational food service industry. Management of food services in venues such as corporations, health care, schools, arenas, concessions, and vending.

FSS 4284C  BA 3(3,1)
Catering and Banquet Organization: PR: HFT 4250C. Methods and procedures for successful on and off premise catering functions. Emphasis on food and beverage preparation, menu planning, service and sales techniques. Laboratory class.

GEA 4206  EN 3(3,0)
Physical Geography of North America: Analysis of the North American landscape as affected by climate, vegetation, and geomorphology.

GEB 2011  BA 3(3,0)
Management: PR: Junior standing. The interdisciplinary application of the managerial functions of planning, organizing, leading, and controlling. For Non-Business Major ONLY.

GEB 3031  BA 6(6,0)
The Cornerstone Course: An orientation to opportunities and challenges facing managers in contemporary business organizations. Introduces competencies of team work, communication, creative thinking, and adapting to change.
GEB 4361 Business in the International Environment: PR: FIN 3403, MAR 3023, MAN 3025. Provides an overall understanding of the nature, magnitude, and importance of the international business sector.

GEO 1200 Physical Geography: Basic physical elements of geography, including climate, landforms, soils, natural vegetation, minerals, and their integrated patterns of world distribution.


GEO 3370 Resources Geography: Analysis of basic principles and problems associated with development, use, conservation, and management of natural resources, with special emphasis on the United States.

GEO 3370H Resources Geography (Honors): Analysis of human management of global resources and the resulting impact on the world's environment.

GEO 3470 World Political Geography: Analysis of factors which affect power relations among nations, including area, location, political styles, ethnic divisions, and the politics of energy.

GEO 4140C Remote Sensing of the Environment: PR: GEO 1200 or C.I. Interpretation and application of remote sensor imagery to physical, economic, and urban analysis.

GER 1005 German Diction: This course is especially designed for music and voice students, with an emphasis on musical terms. German songs, and opera librettis.

GER 1120 Elementary German Language and Civilization I: Introduces the student to German culture through the major language skills: listening, speaking, reading and writing. Open only to students with no experience in this language.

GER 1121 Elementary German Language and Civilization II: PR: GER 1120 or experience with this language. Continuation of GER 1120.

GER 2171 Modern German Civilization Abroad I: PR: GER 1121 or equivalent. Key elements of German life: its artistic, intellectual, scientific, and spiritual contributions to the world, via guest lectures, readings, films, and other media. In German.

GER 2200 Intermediate German Language and Civilization I: PR: GER 1121 or equivalent. Development of language skills and cultural knowledge at the intermediate level.

GER 2201 Intermediate German Language and Civilization II: PR: GER 2200 or equivalent. Continuation of GER 2200 with emphasis on German civilization.

GER 2210 Intensive German Conversation: PR: GER 1121 or C.I. Practical use of the language, leading toward fluency and correctness in speaking.

GER 2270 Intermediate German Study Abroad: PR: GER 1121 or equivalent. Intermediate German language and culture are taught in the native environment.

GER 2271 Modern German Civilization Abroad II: PR: One year of College-level German. Key elements of German life: its artistic, intellectual, scientific, and spiritual contributions to the world via guest lecturers, readings, films, and other media. In German.

GER 3240 German Conversation: PR: GER 2201 or equivalent. Development of skills in conversation and comprehension through practice.

GER 3272 Modern German Civilization Abroad II: PR: GER 2201 or equivalent. Key elements of German life: its artistic, intellectual, scientific, and spiritual contributions to the world via guest lectures, readings, films, and other media. In German.

GER 3420 Intensive German Composition: PR: GER 2201 or equivalent. Development of skills in composition.

GER 3440 Business German I: PR: GER 2200. Introduction into German business language and practices.
GER 3441  
Business German II: PR: GER3440. Continuation of Business German I.  
GER 3470  
Advanced German Study Abroad; PR: GER 2201. Advanced German grammar in the context of conversation and composition is taught in the native environment.  
GER 3790  
German Phonetics and Diction; PR: GER 3240. The fundamental principles of German pronunciation.  
GER 4510  
Life and Culture in Nazi Germany; PR: C.I. Confrontation with the development of national socialist ideas and their realization in everyday life and culture. Given in German.  
GER 4520  
Modern Germany: An introduction to the history of postwar Germany—from the two Germanies to unification and today's Germany. Given in German.  
GEW 3100  
Survey of German Literature I: PR: GER 2201 or equivalent. Main literary currents and works from the Middle Ages through the 19th Century Romanticism.  
GEW 3101  
Survey of German Literature II: PR: GER 2201 or equivalent. Main literary currents and works from 19th Century Realism to the present.  
GEW 3370  
Short Story: PR:GER 2201 or equivalent. German short prose works of the 19th and 20th centuries.  
GEW 3480  
German Post-War Literature: PR: GER 2201. This course examines the work of German, Austrian and Swiss writers after World War II.  
GEW 4482  
German Children's Literature: PR: GER 2200. A look into the history of German children's literature with a concentration on work after World War II.  
GEW 4531  
The Age of Goethe and Schiller: PR:GER 2201. Selected texts of Goethe and Schiller are examined, with particular attention to their relationship to both German classicism and German romanticism.  
GLY 1030  
Geology and its Applications: Geologic principles, applications, and hazards including: gemstones, rock cycle, moving continents, mountain building, metal ores, fossil fuels, groundwater, sinkholes, beach erosion, landslides, earthquakes, tidal waves, volcanicism.  
HBR 1120  
Elementary Modern Hebrew Language and Culture I: Designed to initiate the student to the major language skills; listening, speaking, reading and writing, as well as to constitute an introduction to Israeli culture.  
HBR 1121  
Elementary Modern Hebrew Language and Culture II: PR:HBR 1120 or equivalent. Continuation of HBR 1120.  
HBR 2200  
Intermediate Modern Hebrew I: PR: HBR 1121 or equivalent. Designed to continue the study of Modern Hebrew; increase proficiency in conversation, reading and writing skills, and further expose students to Israeli culture.  
HBR 2201  
HBT 3220  
The Israeli Short Story in Translation: Israeli experience as reflected in contemporary stories read in translation. Selected stories by Agnon, Hazaz, Yizhar, Appelfeld, and others will be read and analyzed.  
HFT 3000  
Introduction to the Hospitality and Tourism Industry: An orientation to the hotel, restaurant, and travel industry, and its history, structure, and operating procedures.  
HFT 3313  
Hospitality Physical Plant Management: PR: HFT 4250C or C.I. Analysis of operational problems related to the physical plant and structure of enterprises in the hospitality industry.  
HFT 3540  
Guest Services Management I: CR: Junior standing. The study of making decisions from the guest's point of view in the hospitality industry.  
HFT 3600  
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>HFT 3751</td>
<td>Convention and Conference Operations:</td>
<td>PR: HFT 4717 or C.I. Fundamentals of conventions and conferences provides an in-depth understanding of the multiple facets of on-site operations associated with effective convention and conference planning and management.</td>
</tr>
<tr>
<td>HFT 3949</td>
<td>Cooperative Education:</td>
<td>Provides paid, pre-professional work experience related to the students' major while they continue to attend school. Requires achievement of major-related learning objectives.</td>
</tr>
<tr>
<td>HFT 4210</td>
<td>Hospitality Enterprises Management II: PR:</td>
<td>C.I. Planning and implementing strategies for managing the human resource in the hospitality/tourism industry.</td>
</tr>
<tr>
<td>HFT 4250C</td>
<td>Hospitality Operations:</td>
<td>PR: Junior Standing or C.I. An integration of lodging and food service operations providing students with a comprehensive knowledge of these related content areas; food service lab component.</td>
</tr>
<tr>
<td>HFT 4343</td>
<td>Hospitality Facilities Planning and Design: PR:</td>
<td>HFT 4250C or C.I. Principles of facility planning layout and design that maximize efficiency in hospitality operations.</td>
</tr>
<tr>
<td>HFT 4473</td>
<td>Hotel Development Analysis: PR:</td>
<td>HFT 4250C, FSS 3223 and HFT 4210 or C.I. Review of methodological operation, financial, and marketing aspects of analyses for hotel development projects.</td>
</tr>
<tr>
<td>HFT 4503</td>
<td>Hospitality and Tourism Marketing: PR:</td>
<td>MAR 3023. The application of marketing concepts to the Hospitality and Tourism Industry. Special emphasis on marketing planning and strategic marketing.</td>
</tr>
<tr>
<td>HFT 4717</td>
<td>Hospitality Operations II: PR:</td>
<td>Junior Standing. A survey of tourism, travel agency, airline, convention and trade show operations from both the U.S. and international perspective.</td>
</tr>
<tr>
<td>HFT 4722</td>
<td>Travel Agency Management: PR:</td>
<td>Junior Standing. The trends operation management procedures and practices of travel agents. Emphasis on tools utilized in agency operations.</td>
</tr>
<tr>
<td>HFT 4752</td>
<td>Guest Services Management II: PR:</td>
<td>HFT 3540 or C.I. Using decision theory and analytical techniques to create and maintain quality guest services. The emphasis is on strategic implications of quality service management.</td>
</tr>
<tr>
<td>HFT 4753</td>
<td>Convention and Conference Services: PR:</td>
<td>HFT 4717 or C.I. Provides an in-depth understanding of the acquisition and management of services (food and beverage, audio visual, transportation, etc.) integral to effective convention and conference operations.</td>
</tr>
<tr>
<td>HFT 4754</td>
<td>Exhibit and Trade Show Operations: PR:</td>
<td>HFT 4717 or C.I. Provides an in-depth study of exhibit and trade show operations. Focuses on both supply and demand pertaining to exhibits and trade shows.</td>
</tr>
<tr>
<td>HFT 4860</td>
<td>Beverage Management: PR: HFT 4250C or C.I.</td>
<td>The origin production, storing, marketing, and control of beverages in the hospitality industry.</td>
</tr>
<tr>
<td>HFT 4949</td>
<td>Cooperative Education:</td>
<td>Provides paid, pre-professional work experience related to the students' major while they continue to attend school. Requires achievement of major-related learning objectives.</td>
</tr>
<tr>
<td>HIS 4150</td>
<td>History and Historians: PR: C.I.</td>
<td>A study of European and/or American historiography. May be repeated once for credit.</td>
</tr>
<tr>
<td>HIS 4970</td>
<td>Senior Thesis:</td>
<td>Original research paper available to advanced history majors, topics to be selected in consultation with a directing professor.</td>
</tr>
<tr>
<td>HIS 4958</td>
<td>Classic and Contemporary Historical Thought: PR:</td>
<td>Graduate Standing. Course will explore work of important historians influenced by social theory to gain an understanding of their main concepts.</td>
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<td>Course Code</td>
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<td>Department</td>
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<tr>
<td>HLP 4722</td>
<td>Teaching Elementary School Health and Physical Education</td>
<td>ED</td>
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<tr>
<td>HMW 3200</td>
<td>Readings in Modern Hebrew Literature</td>
<td>AS</td>
</tr>
<tr>
<td>HSA 3122</td>
<td>U.S. Health Care Systems</td>
<td>HPA</td>
</tr>
<tr>
<td>HSA 3170</td>
<td>Health Care Finance: Budgeting; resources for funding current and long-term assets; cost and cost behavior; prospective payment; DRGs as reimbursement base.</td>
<td>HPA</td>
</tr>
<tr>
<td>HSA 3210</td>
<td>Long Term Care Administration: Current financing mechanisms and proposed solution, and the impact of government regulation or the operation of long-term care facilities.</td>
<td>HPA</td>
</tr>
<tr>
<td>HSA 4120</td>
<td>Community and Public Health Sciences: History and philosophy of public health, interphase of governmental, voluntary, and private health agencies; current community health problems, issues, and needs; social and economic factors.</td>
<td>HPA</td>
</tr>
<tr>
<td>HSA 4121</td>
<td>History and Future of Health Care: Health care institutions; purposes of health agencies, organizations and allied health professionals; new trends in health care delivery. Designed for non-majors.</td>
<td>HPA</td>
</tr>
<tr>
<td>HSA 4180</td>
<td>Organization and Management for Health Agencies: STA 2014 and Major or Minor in College of Health or C.I. Organization and management of health agency organizations and management procedures.</td>
<td>HPA</td>
</tr>
<tr>
<td>HSA 4193</td>
<td>Health Care Automation: Analysis and design of computerized systems for health data and health administration.</td>
<td>HPA</td>
</tr>
<tr>
<td>HSA 4220</td>
<td>Long Term Patient Management: Concepts and process of patient care planning and management in a long term care facility; individual and team roles of medicine, paramedical and supportive personnel, patient and family consideration; long term care facility coordinating.</td>
<td>HPA</td>
</tr>
<tr>
<td>HSA 4502</td>
<td>Risk Management Systems: C.I. Health Safety laws/rules; community inter-relationships; liability insurance types/contracts; malpractice.</td>
<td>HPA</td>
</tr>
<tr>
<td>HSA 4701</td>
<td>Introduction to Research in the Health Professions: Senior or post-bac standing. The logic of research and the architecture of basic and applied investigations that are internally and externally reliable and valuable will be stressed.</td>
<td>HPA</td>
</tr>
<tr>
<td>HSA 5198</td>
<td>Information Systems and Computer Applications in Medicine: Graduate standing or C.I. Overview of health information systems, with an emphasis on computer applications. Discussion of software and hardware requirements.</td>
<td>HPA</td>
</tr>
<tr>
<td>HSC 2000</td>
<td>Introduction to the Allied Health Professions: A survey of allied health professions with regard to duties, responsibilities, education and training, ethics, and relationships with other health professionals. Satisfactory/Unsatisfactory grade.</td>
<td>HPA</td>
</tr>
<tr>
<td>HSC 3110C</td>
<td>Medical Self Assessment: Development of clinical skills and understanding of one's health to encourage active participation of individuals in their own health care.</td>
<td>HPA</td>
</tr>
<tr>
<td>HSC 3402C</td>
<td>CPR &amp; First Aid: To train individuals to accepted and recognized medical standards in emergency first aid and CPR to include medical, environmental and trauma related emergencies.</td>
<td>HPA</td>
</tr>
<tr>
<td>HSC 3531</td>
<td>Medical Terminology: A study of the language of medicine and allied health specialties, including work construction, definitions, and application of terms.</td>
<td>HPA</td>
</tr>
<tr>
<td>HSC 3640</td>
<td>Health Law: Principles of law as applied to the health field, with special reference to health practices.</td>
<td>HPA</td>
</tr>
<tr>
<td>HSC 3593C</td>
<td>HIV Disease: A Human Concern: Analysis of the spectrum of HIV disease. Topics include: epidemiology &amp; immunology; basic facts, prevention; legal, economic, and ethical issues; psychosocial aspects; substance abuse; sexuality and decision-making.</td>
<td>HPA</td>
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<tr>
<td><strong>HSC 4008</strong></td>
<td>Professional Development in Health Professions: PR:RET 3026 or C.I. Career development planning, professional leadership approaches to problem solving, regulatory and professional requirements, and the impact of disease and technology on the health care industry.</td>
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<tr>
<td><strong>HSC 4243</strong></td>
<td>Analysis of Instruction in Health Professions: Development of teaching aids, audiovisuals, learning packets. Course development, questioning strategies, evaluation of didactic and clinical performance.</td>
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<tr>
<td><strong>HSC 4500</strong></td>
<td>Epidemiology: A study of the distribution and determination of diseases and injuries in human population.</td>
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<tr>
<td><strong>HSC 4564</strong></td>
<td>Health Care Needs of the Elderly: Overview of the physical and emotional needs of the elderly, including the institutional health care available.</td>
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<tr>
<td><strong>HSC 4550</strong></td>
<td>Pathophysiologic Mechanisms: PR:ZOO 3733C or PCB 3703C, or C.I. A study of pathologic lesions and pathophysiologic mechanisms in causation and evolution of the various disease state.</td>
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<tr>
<td><strong>HUM 2211</strong></td>
<td>Western Humanities I: Examples of the philosophy, religion, literature, music, and visual arts, from Ancient Greece through the Middle Ages; ideas that shaped our world.</td>
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<tr>
<td><strong>HUM 2211H</strong></td>
<td>Honors Western Humanities I: Same as HUM 2211 with honors-level content.</td>
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<tr>
<td><strong>HUM 2230</strong></td>
<td>Western Humanities II: PR: HUM 2211 or C.I. Continuation of HUM 2211, from the Renaissance through the Modern World.</td>
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<tr>
<td><strong>HUM 2230H</strong></td>
<td>Honors Western Humanities II: PR: HUM 2211 or C.I. Same as HUM 2230 with honors-level content.</td>
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<tr>
<td><strong>HUM 3320</strong></td>
<td>Contemporary Multicultural Studies: PR: HUM 2230. Junior standing, or C.I. Studies the confluence of diverse cultures making up North America in the Information Age, focusing on complete primary sources in philosophy, literature, visual arts and music.</td>
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<tr>
<td><strong>HUM 3401</strong></td>
<td>Asian Humanities: An interdisciplinary survey of the cultures of India, China, and Japan, concentrating on their traditional art, literature, religion, philosophy, and music.</td>
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<td><strong>HUM 3417</strong></td>
<td>Hindu Thought and Culture: A survey of the development of Hindu thought and culture from vedic times to the modern age, with emphasis on religion, literature, philosophy, art and music.</td>
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<tr>
<td><strong>HUM 3418</strong></td>
<td>Islamic Thought and Culture: A survey of the development of Islamic thought and culture, concentrating on religion, jurisprudence, philosophy, science and art.</td>
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<td><strong>HUM 3431</strong></td>
<td>Ancient World: Greece: History and culture of Greece from the Minoan-Mycenaean to the Hellenistic age, with emphasis on contributions in art, literature, and philosophy.</td>
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<tr>
<td><strong>HUM 3432</strong></td>
<td>Ancient World: Rome: History and culture of Rome from the Etruscan Period to the dissolution of the empire, with emphasis on contributions in architecture, law, and literature.</td>
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<td><strong>HUM 3553</strong></td>
<td>Moses, Jesus and Muhammad: Deals with the main themes of Judaism, Christianity, and Islam as found in the teachings of Moses, Jesus, and Muhammad.</td>
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<tr>
<td><strong>HUM 4301</strong></td>
<td>The Classical Ideal: PR:HUM 2211 and HUM 2230 or C.I. The search for order and form in the arts of various times and cultures. Concerns reason, structure, objectivity, harmony. Open to all Juniors and Seniors.</td>
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<tr>
<td><strong>HUM 4302</strong></td>
<td>The Romantic Ideal: PR:HUM 2211 and HUM 2230 or C.I. The Romantic quest for identity with nature and the sublime in the arts of various times. Concerns feeling, imagination, subjectivity, creativity. Open to all Juniors and Seniors.</td>
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HUM 4303 AS 3(3,0)
The Spiritual Ideal: PR:HUM 2211 and HUM 2230 or C.I. Concerns works of art reflecting spiritual insight or the spiritual quest; mystical impulses contrasted to ethos and pathos.

HUN 2002 HPA 3(3,0)
Modern Concepts in Nutrition: An examination of the eating patterns of today's American people. Topics include: nutrients in our diets, consumer demand in the food industry, fast food outlets, food trends and hunger.

HUN 3011 HPA 3(3,0)
Human Nutrition: Essentials of nutrition related to the life cycle, including the physiological, psychosocial, and cultural aspects of nutrition and the inter-relationship with disease are emphasized.

IDH 1921 AS 1(2,0)
Honors Symposium I: Readings, lectures and discussions covering aspects of scholarship, artistic, and other creative efforts.

IDH 1922 AS 1(2,0)
Honors Symposium II: Continuation of Honors Symposium I. Emphasis on understanding scholarly and creative efforts.

INP 3004 AS 3(3,0)
Industrial Psychology: PR: PSY 3204. Analysis of the psychological principles underlying human behavior and performance in an industrial setting. Topics include selection, training, performance appraisal, job design, and employee motivation.

INP 3102 AS 3(3,0)

INP 3803 AS 3(3,0)

INP 3951 AS 3(0,10)
Industrial/Organizational Field Work: PR: C.I. This course is offered as an opportunity for advanced undergraduate psychology majors to become involved in the application of I/O psychology to local organizations.

INP 4313 AS 3(3,0)
Organizational Psychology: PR:INP 3004. Analysis of the psychological principles underlying individual and group behavior in an organizational setting. Topics include group dynamics, leadership and participation, intergroup behavior, and organization development.

INR 3002 AS 3(3,0)
International Relations-Theory and Practice: Analysis of the fundamental principles and factors affecting interstate relations and their application to contemporary global developments.

INR 3253 AS 3(3,0)
International Politics of Africa: An introduction to the broad structures and processes of international politics and foreign policy in Africa, with particular attention to U.S. foreign policy.

INR 4035 AS 3(3,0)
International Political Economy: The international politics of regional and global economic interdependence, with emphasis upon North-South relations, the New International Economic Order, OPEC, and multinational corporations.

INR 4102 AS 3(3,0)
American Foreign Policy: Development of American foreign policy, with emphasis on the role and policies of the United States in the contemporary world.

INR 4114 AS 3(3,0)
American Defense Policy: Study of the evolution of American defense policy since World War II, including consideration of the social and political costs involved and means of control.

INR 4115 AS 3(3,0)
Strategic Weapons and Arms Control: Control of strategic weapons and their impact. Technological and policy aspects, including nuclear proliferation.

INR 4224 AS 3(3,0)
Contemporary International Politics of Asia: Examinations of the foreign policies of major and secondary powers in Asia, with particular attention to China and Japan.

INR 4225 AS 3(3,0)
The Vietnam War: Background of events leading to America's involvement in Indochina, the course of the Vietnam War, and the lessons which that war imparts.

INR 4335: Coercion in International Politics: Examination of the role of coercive techniques among states in a nuclear age, ranging from nuclear strategy and deterrence to wars of national liberation and coups.

INR 4401: International Law I: Introduction to the nature, evolution, and sources of international law and such subareas as recognition of states and governments, expropriation, nationality, and aliens.

INR 4402: International Law II: PR: INR 4401 or C.I. Examination of various sub-areas of international law, including maritime law, laws of the sea and seabed, air law, outer space, neutrality, and laws of war.

INR 4404: Space Law: Examination of the legal regime of outer space from both international and national perspectives, and the legal problems arising from human activity in space.

INR 4502: International Organizations: The study of the structure and workings of international organizations of cooperation, including the UN, its affiliates, and various regional organizations.


ISM 3005: MIS Techniques: Introduction to computer use required of users and developers of management information systems.

ISM 4090: Seminar in Management Information Systems: PR: ISM 4212. Course designed to address new developments in management information systems in a business environment, e.g. artificial intelligence, decision support systems, expert systems, and telecommunications.


ISM 4212: Database Management Systems: PR: ISM 3011 or consent of instructor. Design and implementation of relational database in organizations.


ISM 4300: Technology Management: PR: MAN 3025. The strategy and theory of the design, development, adoption, and management of new information technologies.

ISS 4155: Science Fiction and the Social Sciences: A multimedia examination of note-worthy science fiction from the Social Science perspective.

ITA 1005: Italian Diction: This course is especially designed for music and voice students, with an emphasis on musical terms, Italian songs, and opera libretti.

ITA 1120: Elementary Italian Language and Civilization I: Introduces the student to Italian culture through the major language skills: listening, speaking, reading and writing. Open only to students with no experience in this language.

ITA 1121: Elementary Italian Language and Civilization II: PR: ITA 1120 or equivalent. Continuation of ITA 1120.
ITA 2200
Intermediate Italian Language and Civilization I: PR: ITA 1121 or equivalent. Designed to continue development of language skills at intermediate level, plus a review of grammar, study of syntax, idiomatic expression, extensive readings, and further study of Italian culture.

ITA 2201
Intermediate Italian Language and Civilization II: PR: ITA 2200 or equivalent. Designed to continue development of language skills at intermediate level, plus a review of grammar and study of syntax, with emphasis on Italian civilization.

ITA 2210
Intensive Italian Conversation: PR: One year of Italian or equivalent. Practical use of the language leading toward fluency and correctness in speaking.

ITA 3240
Italian Conversation: PR: ITA 2201 or equivalent. Development of skills in conversation and comprehension with an introduction to Italian culture.

ITA 3420
Italian Composition: PR: ITA 2201 or equivalent. Development of skills in composition, with an introduction to Italian civilization.

ITA 4500
Italian Civilization: PR: ITA 2201. A historical approach to Italian civilization, with particular emphasis on art history.

ITA 4820
Italian Syntax Abroad: PR: ITA 3420. A study of Italian Syntax for advanced students of Italian.

ITW 3100
Survey of Italian Literature I: PR: ITA 2201. Main currents and writers in Italian literature from the 12th through the 15th centuries.

ITW 3101
Survey of Italian Literature II: PR: ITA 2201. Main currents and writers in Italian literature from the 15th century to the present.

ITW 3373
The Modern Italian Short Story: PR: ITA 2201. A study of the most representative modern Italian short stories.

ITW 3600
Dante’s Inferno: PR: ITA 1120 or junior standing. An in-depth study of Dante’s Inferno.

JOU 3004
History of American Journalism: Development of mass media, leading innovators, and the media’s role in the nation’s history.

JOU 3100
News Reporting: Majors only. PR: Grammar Proficiency Examination and department typing exam. Development of skills in newsgathering and writing for the mass media. Students must have minimum ability to type and pass the department language proficiency exam.

JOU 3101
Advanced Reporting: Majors only. PR: Grammar Proficiency Examination and departmental typing examination and JOU 3100. Advanced information-gathering and development of news writing skills.

JOU 3201
Editing I: Majors only. PR: Grammar Proficiency Examination and JOU 3100. Editing copy, writing headlines, managing newsroom operations.

JOU 3202
Editing II: Majors only. PR: Grammar Proficiency Examination and JOU 3200. Practical aspects of editing. Principles of design. Practice in editing and layout.

JOU 4104
Public Affairs Reporting: Majors only. PR: Minimum grade of "C" in JOU 3100. Grammar Proficiency Examination, departmental typing exam, JOU 3101. Reporting on city, county and state government.

JOU 4300
Feature Writing: Majors only. PR: Grammar Proficiency Examination. Typing Examination, and a minimum grade of "C" in JOU 3100 or PUR 3100. Writing feature articles for newspapers and magazines.
JOU 4302  AS 3(1,2)
Editorial and Column Writing: Majors only. PR: Grammar Proficiency Examination, departmental typing exam, and a minimum grade of "C" in JOU 3100. Building the editorial page, background and interpreting the news.

JOU 4306  AS 3(1,2)
Critical Writing: Majors only. PR: Grammar Proficiency Examination, departmental typing exam, and a minimum grade of "C" in JOU 3100. Writing reviews of movies, plays, television programs, concerts, books, and other cultural works.

JOU 4310  AS 3(3,0)
Freelance Writing: Majors only. PR: Grammar Proficiency Examination, departmental typing exam, and evidence of satisfactory writing skills. A study of the techniques and procedures of freelance writing, including the preparation of several manuscripts.

JPN 1120  AS 4(4,1)
Elementary Japanese Language and Civilization I: The course aims at the acquisition of four basic skills: speaking, listening, reading and writing. The emphasis is on accurate communication in Japanese appropriate to given contexts. The culture of Japan will also be studied.

JPN 1121  AS 4(4,1)
Elementary Japanese Language and Civilization II: PR: JPN 1120 or experience with the language. Continuation of JPN 1120.

JPN 2200  AS 3(3,1)
Intermediate Japanese Language and Civilization I: PR: JPN 1121 or equivalent. This course aims to aid in acquiring and refining the acquisition of the four skills in modern Japanese; speaking, listening, reading, and writing. The emphasis is on accurate communication in Japanese. The culture of Japan will also be studied.

JPN 2201  AS 3(3,1)
Intermediate Japanese Language and Civilization II: PR: JPN 2200 or equivalent. Continuation of JPN 2200 with emphasis on Japanese civilization.

JST 3100  AS 3(3,0)

JST 3401  AS 3(3,0)
The Jewish People I: Introduction survey of the history and culture of the Jewish people from the beginnings of Judaism in the biblical era through the Graeco-Roman and rabbinic periods.

JST 3402  AS 3(3,0)
The Jewish People II: The life and history of the Jews in the medieval and modern worlds.

JST 3550  AS 3(3,0)
Introduction of Modernism into Judaism: The transition from traditional Judaism to modern Judaism in the 18th century, as epitomized by Moses Mendelssohn and writers of the Jewish Enlightenment (in translation).

JST 3700  AS 3(3,0)
History of the Holocaust: A comprehensive study of the Holocaust from 1933-1945, framing the persecution of German Jews and the decline of life for the Jews in Europe.

JST 3751  AS 3(3,0)
Literature of the Holocaust: A study of the traumatic experience of the Holocaust in Europe as expressed and depicted in contemporary Jewish and Hebrew Literature.

JST 3810  AS 3(3,0)
The Jewish National Movement and Roots of Zionism; Roots of Zionism and Jewish nationalism and their relationship to modern anti-semitism, through analysis of European Jewish history and society.

JST 3820  AS 3(3,0)
Modern Hebrew Culture: The Development of the State of Israel: Political and ideological struggle for the establishment of the State of Israel, with emphasis on forces which shaped contemporary Israeli society and politics.

LAE 3414  ED 3(3,0)
Literature for Children: PR: Phase I or C.I. General survey of books and materials; criteria for analysis and evaluation; types of books available considered in terms of interests, needs, and abilities of children.

LAE 3504  ED 3(3,0)
Language Acquisition: Examines development of oral language (birth - third grade) and the beginnings of literacy acquisition (birth - age three). Addresses common communicative disorders and intervention methods.

LAE 4314  ED 3(3,0)
Language Arts in the Elementary School: PR: Phase I or C.I. Content, principles, materials, and techniques involved in teaching, speaking, listening, writing, and spelling in the elementary school; organizing for instruction.
LAE 4342
Teaching Language and Composition: PR: EDG 4321. Techniques and methods in teaching of dialects, semantics, the various grammars. A survey of composition and rhetorical methods of selected authors.

LAE 4360
English Instructional Analysis: PR: EDG 4321. Course objectives for a school curriculum and methods and materials which have special application for teaching English at the middle grades and high school.

LAE 4464
Survey of Adolescent Literature: This course is designed to explore adolescent literature from both an educational and an historical perspective.

LAE 5195
CFWP Teacher Consultant: PR: C.I. This course is designed for Fellows of the CFWP Summer Institute who will plan, practice, and present writing inservice components to public schools.

LAE 5295
Writing Workshop I: PR: C.I. Students will engage in exploration and practice of effective writing strategies. May include teaching small groups of students. May be repeated for credit. 1-3 credits.

LAE 5319
Methods of Elementary School Language Arts: Principles, procedures, organization and current practices in reading, writing, listening and talking.

LAE 5367
English Composition and Literature for Teachers of Advanced Placement: PR: Graduate standing and C.I. A two-week summer institute for secondary school teachers preparing to teach Advanced Placement courses.

LAE 5415
Children's Literature in Elementary Education: Survey of children's literature: criteria for selection according to literary elements and child development needs. Methods for presenting to children; integrating literature with elementary curricula.

LAE 5495
Assessing Writing: PR: C.I. Students will explore a variety of strategies for assessing students' writing including holistic scoring, primary trait scoring, and portfolio assessment.

LAH 3130

LAH 3200

LAH 3400
History of Mexico and Central America: PR: EUH 2000 and 2001 or C.I. A survey of Mexican and Central American history from Pre-Columbian times to the present.

LAH 3470
History of the Caribbean: PR: EUH 2000 and 2001 or C.I. History of Cuba, Puerto Rico, Dominican Republic, and Haiti from Pre-Columbian times to the present.

LAH 5713
Colloquium in U.S.-Latin American Relations: PR: Senior Standing and C.I. The course will analyze U.S.-Latin American relations from an historical perspective. It will be presented through readings and discussion of selected materials.

LAT 1120
Elementary Latin Language and Civilization I: Introduces the student to Latin culture through the major language skills: listening, speaking, reading and writing. Open only to students with no experience in this language.

LAT 1120H
Honors Elementary Latin & Civilization I: Same as LAT 1120 with honors-level content.

LAT 1121
Elementary Latin Language and Civilization II: PR: LAT 1120 or equivalent. Continuation of LAT 1120.

LAT 1121H
Honors Elementary Latin & Civilization II: PR: LAT 1120H or equivalent. Same as LAT 1121 with honors-level content.

LIN 2404
Vocabulary and the English Language: Includes study of new words and their etymology and usage, the history and evolution of English, and skills and techniques for building vocabulary.

LIN 3010
LIN 3640
Psychology of Oral Communication: Psychological principles involved in the communicative process, with application to individuals and groups.

LIN 4100

LIN 4612

LIN 4643
Cross Cultural Communication: PR: ENC 1102, Junior standing. Studies of the styles of spoken, written, and nonverbal communication of selected cultural groups, including men and women, Afro- and Anglo-Americans, Germans and French, Hispanics, Arabs, and Japanese.

LIN 4660
Linguistics and Literature: PR: LIN 3010. Investigation of language study as an aid to understanding literature. Topics include analysis of figurative language, languages as characterization, cohesion, sentence and discourse structure.

LIN 4680
Modern English Grammar: PR: ENC 1102 and Sophomore standing. Emphasis upon the analysis and comparison of traditional, structural, and transformational grammar.

LIN 4710
Foundations of Language: This course is designed to explore contributions to language from disciplines of Biology, Neurology, Psychology, and Sociology.

LIN 4710L
Foundations of Language: Students will have practical experience in analyzing children's language samples.

LIN 4801
Language and Meaning: PR: ENC 1102 and Sophomore standing. A linguistic study of the nature of language, meaning, and the ways in which man uses language in various social, cultural, institutional, and professional settings.

LIN 5137
Linguistics: PR: Senior or graduate standing or C.I. Modern linguistic theories and studies focusing on language acquisition and development, contemporary American English, semantics, and para-linguistics.

LIS 4301
Production of Materials for Media Center: PR: LIS 4428. Skill in producing teacher and student-made materials. Emphasizes graphic, photographic, and audio techniques for schools. Lab TBA.

LIT 2110
World Literature I: PR: ENC 1102. Poetry, prose, and drama selected from ancient Hebrew, Greek, and Oriental literature and from that of Renaissance Europe.

LIT 2120
World Literature II: PR: ENC 1102. Readings from Moliere, Voltaire, Goethe, Pushkin, Balzac, Tolstoy, Ibsen, Mann, Kafka, Camus, and others.

LIT 2120H
World Literature II: Honors: Same as LIT 2120, with honors-level content.

LIT 3000
Introduction to Literary Interpretation: PR: ENC 1102. Interpretation of fiction, drama, verse: conflict, characterization, point of view, rhetorical and poetic devices, figurative language, verse forms; application of critical approaches to selected works.

LIT 3082
Continental European Fiction Since 1900: PR: ENC 1102. A selection of significant works of fiction written in various languages during the present century, read in translation.

LIT 3188
Canadian and Commonwealth Literature: Fiction, poetry, and drama written in English in Canada and other Commonwealth nations including Australia and Caribbean and African nations with an English speaking tradition.

LIT 3202
Death and Dying: PR: ENC 1102. Considering the topic of death and dying through a study of literature, the course includes facts, psychological impact, ideological responses to death and identity.

LIT 3313
Science Fiction: PR: ENC 1102. An investigation of science fiction as a literary form, together with selected readings.
LIT 3354  AS 3(3,0)
Ethnic Literature in America: PR: ENC1102. Contributions of linguistic and ethnic groups of non-
English origin to the literature of the United States.

LIT 3383  AS 3(3,0)
Women in Literature: PR: ENC 1102. Fiction, poetry, drama and non-fiction by selected women writers,
such as Emily Dickinson, Jane Austen, George Eliot, Kate Chopin, Zora Neale Hurston, Toni Morrison,
Adrienne Rich, Gwendolyn Brooks.

LIT 3911H  AS 1(1,0)
Research Methods _ Honors: PR: Honors Student Status or consent of Honors coordinator.
Introduction to scholarship and practical research in literature and writing.

LIT 4043  AS 3(3,0)
Modern Drama As Literature: A study of important plays, playwrights, themes, movements, and styles
in modern American, British, and European drama.

LIT 4303  AS 3(3,0)
Post-World War II Fiction: PR: ENC 1102. An investigation of various modes of reality in the works of
significant postmodernist world authors, crossing cultural boundaries.

LIT 4312  AS 3(3,0)
Fantasy: PR: ENC1102. A survey of the literature of fantasy, with emphasis on such figures as C.S.
Lewis.

LIT 4374  AS 3(3,0)
Literature of the Bible: PR: ENC 1102 or LIT 3000 or C.I. Literary forms in the Bible _ narrative, poetic,
and dramatic _ and their reflection in modern literature.

LIT 4433  AS 3(3,0)
Survey of Technical and Scientific Literature: PR: ENC 4293 or C.I. An analysis of the historical
development of technical and scientific writing from the Renaissance to the present.

LIT 4470  AS 3(3,0)
Literature and Film: PR: ENC 1102. An investigation of the differences in emphasis, medium, and
technique in selected novels and their film adaptations.

LIT 4937H  AS 3(3,0)
English Honors Seminar: PR: Honors Student Status or consent of Honors coordinator. In-depth study
of language and/or literature with an emphasis on creative and critical abilities.

LIT 5039  AS 3(3,0)
Studies in Contemporary Poetry: English language poetry from 1945 to the present. Emphasis will be
on American poets, but others such as English or Australian will be included.

LIT 5097  AS 3(3,0)
Studies in Contemporary Fiction: PR: Senior standing or C.I. Fiction in the last 20 years in the United
States and Britain.

LIT 5250  AS 3(3,0)
The Victorian Age: Poetry: PR: Graduate standing or C.I. Poets of the Victorian period, including
Tennyson, the Brownings, Arnold, Hopkins, Hardy, the Rossettis, Emily Bronte, and others.

LIT 5269  AS 3(3,0)
Nineteenth-Century Essays: PR: Graduate standing or C.I. English non-fiction prose of the 19th
century.

LIT 5309  AS 3(3,0)
Media and Popular Literature: PR: Senior standing or C.I. Study of the literary content of contemporary
media and of popular fiction. Application to classroom teaching.

LIT 5366  AS 3(3,0)
The Romantic Revolt (19th Century Literature): PR: Senior standing or C.I. The romantic revolt in
poetry and prose; English, American and Continental literature from 1798 to 1832.

MAA 4226  AS 4(4,0)
Advanced Calculus I: PR: MHF2300 and MAC 3313 or C.I. Limits, sequences, and continuity,
differentiation and integration. Derivatives of integrals. Infinite series and convergence. The
BalzanoWeierstrass Theorem and the Heine-Borel Theorem. Extensions in Euclidian n-space.

MAA 4227  AS 3(3,0)
Advanced Calculus II: PR: MAA 4226 or C.I. Continuation of MAA 4226.

MAA 5210  AS 4(4,0)
Topics in Advanced Calculus: PR: MAC3313 or C.I. Selected topics in multivariable calculus, including
limits, continuity, Euler's theorem, the Jacobian, and double series; extension of single variable
concepts, including uniform convergence and improper integrals.

MAA 5404  AS 3(3,0)
Complex Analysis: PR: MAA 4226, Advanced Calculus I; or C.I. Analytic and harmonic functions,
Cauchy's integral theorem, Cauchy's integral formula, Taylor and Laurent series, singularities and
residue theory, conformal mapping.
MAA 5405

MAA 5416
Foundations of Analysis: PR: MAA 4226. Topological spaces, compactness results, connectedness, analytical and differentiable manifolds, topological groups, Lie groups, representation theory for classical groups, Green, Stoke and Gauss' theorems.

MAC 1104
College Algebra: PR: Intermediate algebra or 2 years of high school algebra or C.I. Inequalities. High degree polynomials. Graphs, rational, logarithmic, and exponential functions. Systems of equations, matrices, determinants, induction. This course prepares students for higher-level mathematics courses.

MAC 1114
College Trigonometry: PR: MAC 1102 or 2 years of high school algebra or C.I. The circle arc length, circular functions, identities, inverse functions, applications to simple harmonic motion, function of angles, complete development of triangle solving.

MAC 3233
Concepts of Calculus: PR: MAC 1104 or C.I. The differential and integral calculus of rational, exponential and logarithmic functions, with applications to business analysis. Not open to students with credit in MAC 3253 or MAC 3311.

MAC 3253
Applied Calculus I: PR: MAC 1104 and MAC 1114 or C.I. Differential and integral calculus. An introduction to differential equations and Laplace Transforms. Applications to engineering technology. Not open to students with credit in MAC 3253 or MAC 3311.

MAC 3254
Applied Calculus II: PR: MAC3253 or C.I. Continuation of MAC3253.

MAC 3311
Calculus with Analytic Geometry I: PR: MAC 1104 and MAC 1114 (College Algebra and Trigonometry) or equivalent or C.I. The differential and integral calculus of algebraic and elementary transcendental functions with geometric and physical applications. Topics from analytic geometry include coordinate systems, vectors, lines, conic sections, transformations of coordinates, and polar coordinates. During the 2nd and 3rd semesters the topics also include sequences and series, Taylor series, and the differential and integral calculus for functions of several variables.

MAC 3311H
Calculus with Analytic Geometry I(Honors): Differential and integral calculus, emphasizing understanding basic concepts and their applications. Students will complete projects on their own. For honors students from all disciplines.

MAC 3312
Calculus with Analytic Geometry II: PR: MAC 3311 or C.I. Continuation of MAC 3311.

MAC 3312H
Calculus with Analytic Geometry II(Honors): Continuation of MAC3311H.

MAC 3313
Calculus with Analytic Geometry III: PR: MAC 3312 or C.I. Continuation of MAC 3312.

MAC 3313H
Calculus with Analytic Geometry III(Honors): Continuation of MAC 3312H.

MAD 4203
Combinatorics and Graph Theory: PR: MAC 3312 and STA 3023. Counting principles, inclusion/exclusion principle, recurrence relations, generating functions, properties of graphs and digraphs, trees, path problems, coloring planarity, connectiveness matchings and coverings, applications.

MAD 5205
Combinatorics and Graph Theory II: PR: MAD 4203. Polya's theory of counting, Latin squares and rectangles, block designs, coding theory, networks, invariants and extremal graph theory, Ramsey theory, probabilistic methods, hypergraphs, applications.

MAE 2801
Elementary School Mathematics: PR: MAC1104 or MGF 120. Mathematics appropriate for the elementary school including the six basic sets of numbers, concepts, learning sequences, algorithms, problem-solving techniques, error patterns, number systems, and geometry.

MAE 4300
Exploring Mathematics: Provides students with the knowledge and skills to design, implement, and facilitate the development of mathematics concepts and skill through an integrated developmentally appropriate curriculum.
MAE 4326
How Children Learn Mathematics: PR: MAE 2801; or C.I.; and admission to Phase II. Instructional strategies, learning activities, the use of manipulatives, lesson planning, evaluation of mathematical learning, and diagnostic techniques.

MAE 4360
Mathematics Instructional Analysis: PR: EDG 4321. Study of course objectives for the middle grades and high school curriculum and survey of methods and materials which have special application for teaching mathematics.

MAE 4634

MAE 5318
Current Methods in Elementary School Mathematics: PR: Regular Certificate or C.I. Strategies of instruction of computation and concepts of number, geometry, and measurement; instructional materials. (Meets Elementary Education certification requirements.)

MAE 5325
Teaching Mathematics in the Middle/Junior High School: PR: 12 s.h. of mathematics, including at least College Algebra. Consideration of the curriculum and instructional techniques appropriate for students in Middle/Junior High School.

MAE 5356
Teaching General Mathematics in the Secondary School: PR: MAE 3330 or C.I. This course addresses specific techniques for developing general mathematics skills and concepts beginning in grade 6. Problem solving, motivation, and innovative methods are explored.

MAE 5935
Post-secondary Mathematics Instruction: The course will focus on issues which are faced by teachers of collegiate mathematics. Topics will be selected from Teaching Issues, Program Issues, and Other Issues.

MAN 3025
Management of Organizations: PR: Junior Standing, ACG 2071 or 2023, ECO 2023, ECO 2013. Introduction to the theory and practice of managing formal organizations, including planning, organization theory, human behavior and control.

MAN 3301
Management of Human Resources: PR: MAN 3025, Junior Standing. Provides students with a complete, comprehensive review of essential human resource management concepts and techniques. Applicable to all students of management.

MAN 3504
Quality & Productivity Management: PR: GEB 3031 and MAN 3025. An examination of the principles and theories of quality and operations management in manufacturing and service organizations.

MAN 4029

MAN 4101
Human Relations in Management: PR: MAN 3025. The study of individual, interpersonal, group, and intergroup problems in business organizations through the use of cases and experimental exercises.

MAN 4129
Managerial Skills in Organizations: PR: MAN 4240. The transference of management theories into practice. This course requires active student involvement in the development and practice of skills necessary to be a successful manager.

MAN 4240

MAN 4310
Personnel Management Issues: PR: Junior standing, MAN 3301. An application-oriented course to give students in the area experiences generally reserved for practitioners in the field of personnel and labor relations.

MAN 4350
Training and Development: PR: MAN 3301. This course focuses on training and development activities as performed by organizational specialists. Theory, issues, practices and problems are discussed.

MAN 4401
Labor Relations Management: PR: Junior standing, MAN 3301. The impact of employee organizations on labor relations, current problems, conflicts and trends; the development of managerial approaches to achieve labor-management cooperation.
MAN 4521 BA 3(3,0)
Production Planning and Control: PR: MAN 3504. In depth study on long-range, intermediate-range and short-range planning and control methods as applied to a manufacturing organization.

MAN 4540 BA 3(3,0)

MAN 4572 BA 3(3,0)
Procurement Management: PR: MAN 3025 and MAN 3504. An elective course in procurement management. Designed to provide the student with fundamental concepts and processes involved in the procurement of goods and services required by modern society.

MAN 4595 BA 3(3,0)
Computer-Based Operations Management: PR: ISM 3011. Application of production planning and control theories and Management Informations Systems concepts to an integrated, computerized, real-world production environment.

MAN 4800 BA 3(3,0)
International Management: PR: GEB 4361. The course examines issues involved in multinational management of business firms, with special emphasis on comparative management.

MAN 4701 BA 3(3,0)
Business Ethics and Society: PR: MAN 3025. This course applies the ethics dimension to business decisions in today's complex political, social, economic and technological environment.

MAN 4720 BA 3(3,0)
Strategic Management: PR: Completion of Core Curriculum. Students assume a strategic view of organizations and integrate and apply material learned in their business courses to modern organizational problems and opportunities.

MAN 4802 BA 3(3,0)
Entrepreneurship: PR: MAN 3025, FIN 3403, and MAR 3023. Study of entrepreneurship with emphasis on innovation, feasibility, planning, product and service concepts, and organizing financing and developing a new venture.

MAN 5050 BA 2(2,0)
Management Concepts: PR: Acceptance in MBA program. Theory and practice of managing organizations to include planning, organizational theory, human behavior, and control.

MAN 5501 BA 2(2,0)
Introduction to Production/Operations Management: PR: Acceptance into the graduate program and ECO 5415 or equivalent. Introduction to the fundamental concepts, processes, and institutions involved in the production of goods and services required by modern society.

MAP 3302 AS 3(3,0)

MAP 3302H AS 3(3,0)

MAP 3401 EN 3(3,0)
Problem Analysis: PR: MAC 3253 or MAC 3311 and computer programming. Application of numerical methods techniques to selected problems in Engineering Technology.

MAP 4103 AS 3(3,0)

MAP 4153 AS 3(3,0)
Vector and Tensor Analysis: PR: MAC 3313 or C.I. Vector calculus. The theorems of Green, Gauss and Stokes. Introduction to tensors. Application in engineering and physical sciences.

MAP 4307 AS 3(3,0)

MAP 4308 AS 3(3,0)

MAP 4363 AS 3(3,0)
MAP 4364
Applied Boundary Value Problems II: PR: MAP 4363 or C.I. Legendre polynomials and Bessel functions. The theory of Sturm-Liouville. Separation of variables. Applications involving the wave equation, heat equation and equation of Laplace.

MAP 5385
Applied Numerical Mathematics: PR: MAP 3301 or C.I. Classical topics or numerical analysis and their applications, Romberg integration, Richardson extrapolation, Gaussian quadrature schemes.

MAP 5385
Applied Numerical Mathematics: PR: MAP 3301 or C.I. Classical topics or numerical analysis and their applications, Romberg integration. Richardson extrapolation, Gaussian quadrature schemes.

MAP 5385
Applied Numerical Mathematics: PR: MAP 3301 or C.I. Classical topics or numerical analysis and their applications, Romberg integration. Richardson extrapolation, Gaussian quadrature schemes.

MAP 5396
Splines and Data Fitting: PR: MAS 3106, MAS 3113, MAP 3302, or C.I. Univariate splines and their application to data fitting. Applications to regression analysis, differential and integral equations. Algorithms to use different types of splines in computation.

MAP 5404

MAP 5407

MAP 5426
Special Functions: PR: MAP 3302 or C.I. Series and integral representations, generating functions, recurrence relations and orthogonality properties of the special functions. Emphasis on Bessel, Legendre and hypergeometric functions.

MAP 5514
Linear and Nonlinear Waves I: PR: MAP 3302, MAP 4363; or C.I. Equations of motion in inviscid and viscous fluids, energy equation and energy flux, linear theory of gravity and capillary-gravity waves, variational principles for water waves.

MAP 5931
Research Seminar: PR: None. Four instructors will introduce the students to a research area by presenting necessary background and presenting current investigations. Different branches of mathematics will be presented for a sense of diversity.

MAR 3023
Marketing: PR: Junior standing. Study of functions, institutions, and basic problems in marketing of goods and services in our domestic economy and abroad.

MAR 3323
Advertising, Sales Promotion, and Public Relations: PR: MAR 3023 or C.I. Planning and execution of advertising, sales promotion, and public relations programs consistent with integrated marketing communications programs.

MAR 3391
Marketing Communications and Professional Selling: PR: MAR 3023. Study and practice of written and verbal communications skills applied to marketing settings. A significant portion of the course is devoted to the study of professional selling.

MAR 3403
Sales Force Management: PR: MAR 3023 or C.I. An overview of the sales management process. Emphasis on sales program formulation and implementation.

MAR 3603

MAR 3613
Marketing Analysis and Research: PR: MAR 3023, ECO 3411. Study of analytical tools and their application to marketing problems and decision making. Forecasting, financial analysis, and acquisition of primary data through market research are emphasized.

MAR 3641
Marketing Intelligence, Information Sources and Environmental Scanning: PR: MAR 3023 Study of contemporary sources and applications of information concerning external forces impacting market decision making.
MAR 3823
Marketing Management: PR: MAR 3023 and any one additional MAR course or C.I. Operational framework exploring the analysis, planning, and control activities of marketing.

MAR 4156
International Marketing: PR: MAR 3023 or C.I. Investigates strategy, policy and the variables in international marketing decisions.

MAR 4231
Retailing Management: PR: MAR 3023 or C.I. Analysis of the field of retailing. Emphasis on planning for profit through management, inventory control, etc.

MAR 4711
Sports Marketing: PR: MAR 3023 or C.I. Study of marketing as it applies to the sports and leisure industry.

MAR 4712
Healthcare Marketing: PR: MAR 3023 or C.I. Study of marketing as it applies to healthcare manufacturers, intermediaries and providers.

MAR 4804
Marketing Strategy: PR: Senior standing and all other marketing courses completed. Marketing problems are explored, with emphasis on strategy formulation and integrative marketing decision-making.

MAR 4841
Services Marketing: PR: MAR 3023 or C.I. Examination of marketing in services industries, with particular emphasis on unique aspects of services marketing, the service marketing mix, and the implementation of services strategies.

MAR 4941
Marketing Internship: PR: Marketing major, application approval, consent of department chair. Provides student with supervised, market-related work experience in a sponsoring organization. See department for information; application required. Note: MAR 4941 may not be counted for restricted elective credit in marketing.

MAR 5056
Marketing Concepts: PR: Acceptance into the graduate program. Study of functions, institutions, and basic marketing of goods in the U.S. economy.

MAR 5941
Small Business Consulting: PR: ACG 2021, 2071, ECO 2023, 2013, MAN 3025, MAR 3023, or graduate status. Provides students opportunity to apply knowledge learned in classroom to real business situations. Open to undergraduate majors in the College of Business Administration with approval of the department chair.

MAS 3105
Elementary Linear and Matrix Algebra: PR: MAC 3312 or C.I. Matrices, determinants, vector spaces in Rn, linear independence, basis, solutions of systems, range of linear transformations, eigenvectors, Jordan Form, matrix functions, quadratic forms.

MAS 3106
Linear Algebra: PR: MHF 2300 and MAS 3105 or C.I. Abstract vector spaces, linear transformations, isomorphisms, projections, innerproducts, the spectral theorem, Jordon Canonical Form. (Only offered spring semester).

MAS 3203
Introduction to Number Theory: PR: MHF 2300 or C.I. The course will include the following topics: inductive reasoning, factorization, the division algorithm and congruences.

MAS 4146

MAS 4301
Algebraic Structures: PR: MHF 2300 or C.I. An introduction to groups, rings and fields.

MAS 5311
Abstract Algebra with Applications: PR: MAS 4301 or undergraduate abstract algebra. Group actions, the class equation, Sylow Theorems, polynomial rings, Euclidean domains, principal ideal domains, field extensions, modules, and semi-simple rings.

MCB 3013C
General Microbiology: PR: BSC 2010C and CHM 2046 or equivalent. Fundamentals of microbiology, evaluating microbial structure and function, metabolism, growth, genetics, virology environmental control, ecology, pathogenicity; and laboratory techniques.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Required Courses</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCB 3203</td>
<td>Pathogenic Microbiology</td>
<td>PR: MCB 3013C or C.I.</td>
<td>Microorganisms producing disease in man and other animals; means of transmission; protection against disease.</td>
</tr>
<tr>
<td>MCB 3203L</td>
<td>Pathogenic Microbiology Laboratory Investigation</td>
<td>CR: MCB3203.</td>
<td>Laboratory investigation of pathogenic microorganisms, with emphasis on isolation and identification of pathogenic microorganisms.</td>
</tr>
<tr>
<td>MCB 4114C</td>
<td>Determinative &amp; Systemic Microbiology</td>
<td>PR: MCB 3013C, MCB 3203.</td>
<td>Microbial classification taxonomic rules and nomenclature techniques for identification and interrelating the phyla and taxa of bacteria.</td>
</tr>
<tr>
<td>MCB 4414</td>
<td>Microbial Metabolism</td>
<td>PR: MCB 3013C and BCH 4054.</td>
<td>Interrelationship between cellular structure function and genetic traits in microorganisms. The interaction between microorganisms and their nutritional environment.</td>
</tr>
<tr>
<td>MCB 4603C</td>
<td>Environmental Microbiology</td>
<td>PR: PCB 3043 and MCB 3013C.</td>
<td>Interrelationships between the biological activities of microorganisms and their terrestrial and aquatic environments.</td>
</tr>
<tr>
<td>MCB 5205</td>
<td>Infectious Process</td>
<td>PR: MCB 3013C or C.I.</td>
<td>Discussion of current theories of the infectious process and the response of host cells and tissue to infection.</td>
</tr>
<tr>
<td>MCB 5654</td>
<td>Applied Microbiology</td>
<td>PR: MCB 3013C or C.I.</td>
<td>Microbial biochemistry of industrial processes including economics, screening, scale up, quality control and applied genetics.</td>
</tr>
<tr>
<td>MET 3101</td>
<td>Fundamentals of Meteorology and Climatology</td>
<td>PR: MAC 1104 or C.I.</td>
<td>Studies of the physical processes that determine the climate of a region. The methods of measurement and use of meteorological parameters.</td>
</tr>
<tr>
<td>MGF 1203</td>
<td>Finite Mathematics</td>
<td>PR: Intermediate algebra or 2 years of high school algebra or C.I.</td>
<td>Introduction to logical structure, sets, probability, arrays, games. This course is intended for students who are not planning to take further courses in mathematics.</td>
</tr>
<tr>
<td>MHF 2300</td>
<td>Logic and Proof in Mathematics</td>
<td>PR: Two years of high school algebra and one year of geometry or C.I.</td>
<td>Basic mathematical logic. Methods of proof in mathematics. Application of proofs to elementary mathematical structures.</td>
</tr>
<tr>
<td>MHS 5005</td>
<td>Introduction to Guidance and Human Services</td>
<td>PR: Completion of Phase II of Education Prof. Prep. or Certificate or C.I.</td>
<td>A basic course presenting an overview of the philosophy, organization, administration and operation of guidance and human services.</td>
</tr>
<tr>
<td>MIS 1031</td>
<td>Basic Military Science</td>
<td>PR: Organization of the Army and ROTC.</td>
<td>Career opportunities, significance of military courtesy, discipline, customs, and traditions. Analysis of weapons and equipment of the U.S. Army.</td>
</tr>
<tr>
<td>MIS 1400</td>
<td>Fundamentals of Leadership Development</td>
<td>PR: Development of leadership abilities, including squad movement techniques. Fundamentals of Land Nav will be discussed.</td>
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<tr>
<td>MIS 1601</td>
<td>Orienteering and Survival</td>
<td>PR: Course is designed to familiarize students on the various survival techniques and methods used in Orienteering.</td>
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<tr>
<td>MIS 2120</td>
<td>Leadership Development - I</td>
<td>PR: Development of leadership abilities through practical exercises. Includes platoon leadership assessment program, role of the NCO, land navigation, and conduct of briefings.</td>
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<tr>
<td>MIS 2300</td>
<td>Leadership Development - II</td>
<td>PR: Development of leadership abilities. Includes first aid training, communications, the threat, offensive/defensive operations, patrolling, and troop leading procedures.</td>
<td></td>
</tr>
</tbody>
</table>
MIS 3301
The Small Unit Leader: Analysis of the leader's role in directing and coordinating efforts of small units in tactical operations. Includes land navigation, weapon systems, communications, defensive/offensive operations and patrolling.

MIS 3410
Leadership Responsibilities: A description of the role and responsibility of the small unit leader. Includes principles of war, military instruction, land navigation, patrolling and offensive/defensive operations.

MIS 4421
Military Law: A study of military law, the Army's maintenance management system, and a study of the obligations and responsibilities of a newly-commissioned officer.

MIS 4430
Advanced Military Science: Study of the decision-making process; staff organization, estimating process, training, scheduling, and staff studies. Analysis of administration, personnel and Army supply system.

MLS 3220C
Techniques in Clinical Microscopy: PR: Admission to the professional phase of the MLS program or C.I. Analysis of human urine and other body specimens, chemically and microscopically; interpretation of abnormal results and their correlation to disease included.

MLS 3305
Hematology: PR: Admission to the professional phase of the MLS program or C.I. Diagnostic procedures and morphologic interpretation; correlation of this data to disease.

MLS 3705
Concepts in Education/Management: PR: Admission to professional phase of the MLS Program or C.I. Introduction to laboratory management, health delivery systems, and educational practices in clinical settings.

MLS 4334C
Hemostasis: PR: Admission to the professional phase of the MLS program or C.I. Study of the hemostasis mechanisms; diagnostic procedures and correlation of data to pathological conditions.

MLS 4420C
Clinical Mycology: PR: Admission to the professional phase of the MLS program with C.I. Instruction and laboratory practice in the isolation and identification of fungi associated with mycotic infections of man.

MLS 4430C
Clinical Parasitology: PR: Admission to the professional phase of the MLS program or C.I. Instruction and laboratory practice in the examination and study of clinical material for the detection and identification of animal parasites.

MLS 4440C
Clinical Pathogenic Microbiology: PR: or CR: MCB 3203 and admission to the professional phase of the MLS program. Isolation and pathogenic bacteria and serological methods; interpretation of abnormal results, with correlation to disease.

MLS 4506C
Immunodiagnostics: PR: PCB 3233. Theory and application of clinical serologic and immunologic diagnostic testing, stressing the utilization of monoclonal technology.

MLS 4560C
Clinical Immunohematology: PR: Admission to the professional phase of the MLS program or C.I. Investigation of incompatible crossmatches; antibody identification, leukocyte antigens and identification procedures, problem solving.

MLS 4620C
Concepts and Applications in Clinical Chemistry: Overview of clinical chemistry theory and principles for the practicing technologists to include instrumentation, protein chemistry, enzymology, and organ system physiology.

MLS 4625C
Advanced Clinical Chemistry I: PR: Admission to the professional phase of the MLS program or C.I. Theory and practice in clinical chemistry techniques; carbohydrates, protein, electrophoresis, enzymes, instrumentation, and quality control.

MLS 4630C
Advanced Clinical Chemistry II: PR: MLS 4625 and admission to professional phase of MLS or C.I. Theory and practice in clinical chemistry techniques; liver function testing, lipids, hormones, toxicology, and drug monitoring.

MLS 4830C
Clinical Practice I: PR: Admission to the professional phase of MLS program or rotation in one or more of the following areas: Hematology, Chemistry, Microbiology, Blood Bank, Serology-Coagulation, Clinical Microscopy, Nuclear Medicine.
MLS 4831C  
Clinical Practice II: PR: Admission to the professional phase of the MLS program or C.I. Continuation of MLS 4830C.

MLS 4832C  
Clinical Practice III: PR: Admission to the professional phase of the MLS program or C.I. Continuation of MLS 4831C.

MLS 4833C  
Clinical Practice IV: PR: Admission to the professional phase of the MLS program or C.I. Continuation of MLS 4832C.

MLS 4834C  
Clinical Practice V: PR: Admission to the professional phase of the MLS program or C.I. Continuation of MLS 4833C.

MLS 5710  
Current Concepts in Laboratory Management: Overview of current administration and supervision concepts in a clinical laboratory to include laboratory planning, personnel administration, and financial management.

MMC 4200  
Mass Communication Law: The legal rights and responsibilities of the mass media.

MMC 4602  
Contemporary Media Issues: PR: JOU 3100, PUR 3100 or RTV 3300. Relationship between the mass media and society; examination of social and ethical issues and responsibilities of the media’s relationship with government.

MRE 3000C  
Foundations of Health Information Management (HIM): PR: Acceptance into upper-division limited access HIM program. Foundation of profession; release of information; numbering and filing systems; standards for long-term care; ambulatory care; and mental health records.

MRE 3110C  
Health Record Organization and Management: PR: MRE 3000. Nomenclatures/classification systems; health and vital statistics; data analysis and presentation; indexing; computer abstracting; accrediting and approving agencies; medical staff organization.

MRE 3800L  
Directed Practice I: PR: Acceptance into upper-division limited access HIM program. CR: MRW 3000. Interdepartmental experience; master patient index; admission and discharge processing and introduction to health information departments in selected health care facilities.

MRE 3810L  
Directed Practice II: PR: MRE 3800, HSC 3531, MRE 3800. Health record assembly and analysis; release of medical information; numbering and filing systems; incomplete record control; record storage and retention.

MRE 4202C  
Coding Procedures I: PR: MRE 3432, HSC3531, or C.I. Principles and mechanics of coding systems for inpatient health information retrieval; ICD-9-CM; DRGs; encoders.

MRE 4203C  
Coding Procedures II: PR: MRE 4202 or C.I. Principles and mechanics of coding systems for outpatient health information retrieval; ICD-9-CM; HCPCS; APGs; encoders.

MRE 4218C  
Health Information Management Systems: PR: HSA 4193, MRE 4202. Vitalization of information systems, management and patient care in the health care industry, systems analysis, system design and project management concepts.

MRE 4304  
Professional Development and Issues in Health Information Management: PR: MRE 4312C, MRE 4500. Analysis of management functions in health care setting; the HIM professional as an educator; problem-solving techniques; professional ethics; alternative careers.

MRE 4312C  
Health Information Department Management: PR: MRE 3110; MAN 3025. Personnel administration; budgeting; forms analysis; work distribution and simplification; equipment selection; ergonomics; and space planning.

MRE 4500  
Performance Improvement: PR: HSC 3531, HSC 4550, MRE 3110. Principles and mechanics of quality improvement; utilization review; case management and risk management.

MRE 4830L  
Directed Practice III: PR: MRE 3110; MRE 4202; MRE 3810. Inpatient coding; health and vital statistics; JCAHO accreditation; indexing; abstracting; medical staff organization.
MRE 4832L HPA 2(0.4)
Directed Practice IV: PR: MRE 4203; MRE 4312C; MRE 4500; MRE 4830L. Indexing abstracting; audit; quality assurance; U.R.; transcription; budget; management of activities in DP I, II, III; computer applications. Assignment to hospital and other health care facilities.

MRE 4835 HPA 5(0.15)
Management Affiliation: PR: All other required courses. Assignment to a selected health care facility serving in an administrative capacity under the direction of a Registered Record Administrator; lab exercises; comprehensive exam.

MTG 4212 AS 4(4.0)
Modern Geometrics: PR: MAC 3311 or C.I. Sets of axioms and finite geometries, groups of transformations, Euclidean motions of 2-space and 3-space, convexity in 2-space and 3-space. Euclidean geometry of polygon and circle, constructible numbers, constructions and non-Euclidean geometry.

MTG 4302 AS 3(3.0)
Introduction to Topology: PR: MHF 2300 or C.I. Metric spaces, topological spaces, limit points, continuity, compactness and connectedness.

MUC 1101 AS 1(1.1)
Composition I: Creative work in small forms. Open to qualified non-music majors with C.I. May be repeated for credit.

MUC 3104 AS 2(1.0)
Composition II: PR: Music major, Junior standing, C.I. Continuation of Composition I.

MUC 3311 AS 3(2.2)
MIDI Sequencing I: PR: Keyboard ability, Junior standing, and C.I. Utilization of synthesizers, drum machines, and computers with MIDI sequencing.

MUC 4347 AS 2(2.0)
Digital Notation: PR: MUC 3311. Work on projects utilizing computer notational software applications.

MUC 4441 AS 2(2.0)
MIDI Sequencing II: PR: MUC 3311, Junior standing, and C.I. Continuation of sequencing, sampling, and inactive digital music technology.

MUE 1440 AS 1(0.2)
String Techniques: Class instruction in beginning string playing techniques.

MUE 2040 AS 2(2.0)

MUE 2210 ED 3(3.0)
Early Childhood Music and Movement: An examination of the role of music and creative movement in the lives of young children.

MUE 3210 ED 3(2.1)
Music in the Elementary School: Fundamental procedures for teaching elementary school music; stressing appropriate music materials and activities for different age groups; selected experience in music.

MUE 3450 AS 1(1.0)
Woodwind Techniques I: Class instruction in beginning woodwind playing techniques.

MUE 3451 AS 1(1.0)

MUE 3460 AS 1(0.2)
Brass Techniques: Class instruction in beginning brass playing techniques. May be repeated for credit.

MUE 3470 AS 1(0.2)
Percussion Techniques: Class instruction in beginning percussion playing techniques.

MUE 4311 ED 2(2.0)
Elementary School Music Instructional Analysis: PR: Junior standing. Organization and administration of instruction for comprehensive music education, K-6; instructional planning, techniques, and materials for elementary music education.

MUE 4360 ED 2(2.0)
Secondary School Music Instructional Analysis: PR: MUE 4311 or C.I. Instructional planning, techniques and materials in middle school, junior high and senior high classrooms; consideration of general music education program; evaluation materials and procedures.

MUE 4480 AS 1(1.1)
MUE 5695  ED 3(3,0)
Trends in Arts Education: PR: Initial Certification or C.I. Investigation of current trends in arts education; development of strategies for utilizing understandings of arts education in the total curriculum of elementary students.

MUG 3101  AS 2(1,1)
Basic Conducting: Fundamental techniques and practice in conducting.

MUG 3202  AS 3(3,2)
Choral Conducting and Materials: PR: MUG 3101. Fundamental principles of choral conducting and rehearsal techniques including an examination of materials.

MUG 3302  AS 3(3,2)
Instrumental Conducting and Materials: PR: MUG 3101. Fundamental principles of instrumental conducting and rehearsal techniques including an examination of materials.

MUG 4103  AS 2(1,1)
Advanced Conducting: PR: C.I. Study of advanced vocal or instrumental conducting techniques. Rehearsal procedures, selection of materials and program-building, interpretation of scores, study and performance of selected works.

MUH 4211  AS 3(3,0)
History and Literature I: PR: MUT 1112. In-depth study of the development of Western musical styles from antiquity to present.

MUH 4212  AS 3(3,0)
History and Literature II: PR: MUT 1112. Continuation of MUH 4211.

MUH 4218  AS 1(1,0)
Review of Music History: PR: C.I. A review of music history from Ancient Greece to the present.

MUH 4341  AS 3(3,0)

MUL 2010  AS 3(2,1)
Enjoyment of Music: Only non-music majors. Designed to develop an understanding of musical principles and techniques for listening to music.

MUL 2016  AS 3(3,0)
Evolution of Jazz: Survey of jazz literature and performance.

MUL 3400  AS 2(1,1)
Piano Literature I: PR: Major in Music or C.I. Survey of stringed keyboard literature from the 16th century to the present, with emphasis on technical, formal and performance problems.

MUL 3401  AS 2(1,1)
Piano Literature II: PR: MUL 3400. Continuation of MUL 3400.

MUL 3442  AS 2(2,0)
Woodwind Literature: PR: Junior standing, C.I. Music major. Survey of woodwind literature from the 16th century to the present.

MUL 3442  AS 2(2,0)
Brass Literature: PR: Music major (Brass), Junior standing, C.I. Survey of brass solo/ensemble literature from 16th century to present.

MUL 3463  AS 2(2,0)

MUL 3603  AS 1(1,1)
American/English Song Literature: PR; C.I. Survey of songs written by American or English composers.

MUL 3604  AS 1(1,1)
German Song Literature: PR: Music major or C.I. Survey of German song literature.

MUL 3605  AS 1(1,1)
French Song Literature: PR: Music major or C.I. Survey of French song literature.

MUN 2023  AS 1(0,2)

MUN 3174  AS 1(0,3)
Vocal-Jazz Ensemble: PR: C.I. Open to all students. Study and performance of music for small ensembles. May be repeated for credit.

MUN 3113  AS 2(0,8)
Marching Band: PR: Admission by audition. Preparation for appearance at football games and special occasions. May be repeated for credit.
MUN 3123  
Concert Band: Open to all students with audition. Study and performance of music for large ensembles. May be repeated for credit.

MUN 3143  
Wind Ensemble: Open to all students by audition. Study and performance of music for wind ensemble and band. May be repeated for credit.

MUN 3283  
Community Orchestra: PR: C.I. Open to all students. Audition for wind and percussion players required. Repertoire from symphonic literature. May be repeated for credit.

MUN 3313  
University Choir: PR: C.I. Open to all students by audition. Study and performance of large ensemble music. Possible tours. May be repeated for credit.

MUN 3343  
Madrigal Singers: PR: C.I. Open to all students by audition. Extra rehearsals and Madrigal Dinners required. Tours. May be repeated for credit.

MUN 3344  
Chamber Chorus: Open to all students by audition. Study and performance of music for small ensembles. May be repeated for credit.

MUN 3383  
Oratorio Choir: Open to all students, faculty, and members of the community for performance of large works. May be repeated for credit.

MUN 3423  
Woodwind Ensemble: PR: C.I. Open to all students. Study and performance of music for small ensembles. May be repeated for credit.

MUN 3433  
Brass Ensemble: PR: C.I. Open to all students. Study and performance of music for small ensembles. May be repeated for credit.

MUN 3442  

MUN 3443  
Percussion Ensemble: PR: C.I. Open to all students. Study and performance of music for small ensembles. May be repeated for credit.

MUN 3444  

MUN 3453  
Piano Ensemble: Open to Music Majors or C.I. Study and performance of music for small ensembles. May be repeated for credit.

MUN 3483  
String Ensemble: PR: C.I. Open to all students. Study and performance of music for small ensembles. May be repeated for credit.

MUN 3494  

MUN 3713  
Jazz Lab: PR: C.I. Open to all students by audition. Study and performance of music for small ensembles. May be repeated for credit.

MUN 3717  
Jazz/Pop Ensemble: PR: C.I. Open to all students. Study and performance of music for small ensembles. May be repeated for credit.

MUN 3723  
Jazz Combo: PR: Junior standing and C.I. Rehearsal and performance of music for small jazz combo, emphasizing improvisation.

MUN 4473  
Early Music Ensemble: PR: C.I. Study and performance of pre-classical music. May be repeated for credit.

MUO 3503  
Opera Workshop: PR: C.I. Study of expressive emotion in relation to musical theatre; staging and performance of prepared studies of popular music for vocal ensembles. May be repeated for credit.

MUS 1010  
Music Forum: A series of special musical events required of music majors. Includes lectures and recitals by faculty, students, and guest artists.
MUS 4293
Music Theatre Ensemble: PR: Junior standing and C.I. Rehearse, study, and preparation of musical theatre score for PIT orchestra and off-stage singers, culminating in public performance with University Theatre.

MUS 4330
Recording Techniques for Classical Music: PR: MUS 2320 or C.I. Concert hall recording techniques for classical music.

MUS 4401
Studio Teaching: PR: C.I. Management of the music studio; responsibilities and techniques of private instruction for the studio teacher, principles of psychology of music. May be repeated for credit.

MUS 4905
Directed Experience: PR: C.I. and Junior standing. Special topics of study and/or research as determined by student/faculty consultation. May be repeated for credit.

MUS 5526
Music and Technology: PR: Graduate Student. The emergence of technology in music including MIDI, CD ROM, and the high-tech music classroom.

MUT 1111

MUT 1112

MUT 1241
Ear Training and Sight Singing IA: Aural and visual/oral comprehension of elements of music - rhythm, melody, harmony, form. Intended to be taken with MUT 1111.

MUT 1242

MUT 2116

MUT 2117

MUT 2246
Ear Training and Sight Singing IIA: PR: MUT 1242. Continuation of MUT 1242. Intended to be taken with MUT 2116.

MUT 2247
Ear Training and Sight Singing IIB: PR:MUT 2246. Continuation of MUT 2246. Intended to be taken with MUT 2117.

MUT 3170
Jazz Theory I: PR: MUT 1111, MUT 1112, MUT 1241, MUT 1242. Examine traditional harmony, melody, and rhythm.

MUT 3171
Jazz Theory II: PR: MUT 3170. Continuation of Jazz Theory I; examining jazz harmony, melody, and rhythm.

MUT 3571
20th Century Musical Analysis: PR: MUT 2116 and MUT 2117 or equivalent. Overview of 20th century music, including musical compositions, techniques of musical analysis, and styles.

MUT 3641
Jazz Improvisation I: PR: MUT 3171, Junior standing or C.I. Jazz improvisation with an emphasis on listening, harmony, arranging, and jazz forms. Melodic and harmonic dictation at the keyboard.

MUT 3642
Jazz Improvisation II: PR:MUT 3641 Junior standing or C.I. A continuation of Jazz Improvisation I.

MUT 4031
Review of Music Theory: PR: C.I. A comprehensive review of harmonic and analytic skills. May be repeated for credit.

MUT 4344

MUT 5381
MVB 1211

MVB 1212
Secondary French Horn: PR: Consent of Music Chair. CR: Performing ensemble. Advanced instruction in French Horn. Intended for non-music majors. May be repeated for credit.

MVB 1213

MVB 1214

MVB 1215
Secondary Tuba: PR: Consent of Music Chair. CR: Performing ensemble. Advanced instruction in tuba. Intended for non-music majors. May be repeated for credit.

MVB 1411
Trumpet I: PR: Major in music or consent of chair; audition. May be repeated for credit.

MVB 1412
French Horn I: PR: Major in music or consent of chair; audition. May be repeated for credit.

MVB 1413
Trombone I: PR: Major in music or consent of chair; audition. May be repeated for credit.

MVB 1414
Baritone I: PR: Major in music or consent of chair; audition. May be repeated for credit.

MVB 1415
Tuba I: PR: Major in music or consent of chair; audition. May be repeated for credit.

MVB 2421
Trumpet II: PR: MVB 1411 and competence determined by faculty jury. Continuation of MVB 1411. May be repeated for credit.

MVB 2422
French Horn II: PR: MVB 1412 and competence determined by faculty jury. Continuation of MVB 1412. May be repeated for credit.

MVB 2423
Trombone II: PR: MVB 1413 and competence determined by faculty jury. Continuation of MVB 1413. May be repeated for credit.

MVB 2424
Baritone II: PR: MVB 1414 and competence determined by faculty jury. Continuation of MVB 1414. May be repeated for credit.

MVB 2425
Tuba II: PR: MVB 1415 and competence determined by faculty jury. Continuation of MVB 1415. May be repeated for credit.

MVB 3431
Trumpet III: PR: MVB 2421 and competence determined by faculty jury. Continuation of MVB 2421. May be repeated for credit.

MVB 3432
French Horn III: PR: MVB 2422 and competence determined by faculty jury. Continuation of MVB 2422. May be repeated for credit.

MVB 3433
Trombone III: PR: MVB 2423 and competence determined by faculty jury. Continuation of MVB 2423. May be repeated for credit.

MVB 3434
Baritone III: PR: MVB 2424 and competence determined by faculty jury. Continuation of MVB 2424. May be repeated for credit.

MVB 3435
Tuba III: PR: MVB 2425 and competence determined by faculty jury. Continuation of MVB 2425. May be repeated for credit.

MVB 4441
Trumpet IV: PR: MVB 3431 and competence determined by faculty jury. Continuation of MVB 3431. May be repeated for credit.

MVB 4442
French Horn IV: PR: MVB 3432 and competence determined by faculty jury. Continuation of MVB 3432. May be repeated for credit.
MVB 4443
Trombone IV: PR: MVB 3433 and competence determined by faculty jury. Continuation of MVB 3433. May be repeated for credit.

MVB 4444
Baritone IV: PR: MVB 3434 and competence determined by faculty jury. Continuation of MVB 3434. May be repeated for credit.

MVB 4445
Tuba IV: PR: MVB 3435 and competence determined by faculty jury. Continuation of MVB 3435. May be repeated for credit.

MVB 5451
Trumpet V: PR: C.I. May be repeated for credit.

MVB 5452
French Horn V: PR: C.I. May be repeated for credit.

MVB 5453
Trombone V: PR: C.I. May be repeated for credit.

MVB 5454
Baritone V: PR: C.I. May be repeated for credit.

MVB 5455
Tuba V: PR: C.I.

MVK 1111
Class Piano I: Class instruction for beginning piano students. Not open to music majors whose major performing medium is piano.

MVK 1211

MVK 1213

MVK 1411
Piano I: PR: Major in music or consent of chairperson; audition. May be repeated for credit.

MVK 1413
Organ I: PR: Major in music or consent of chairperson; audition. May be repeated for credit.

MVK 2121
Class Piano II: PR: MVK 1111 or C.I. Continuation of MVK 1111. Not open to music majors whose major performing medium is piano.

MVK 2421
Piano II: PR: MVK 1411 and competence determined by faculty jury. Continuation of MVK 1411. May be repeated for credit.

MVK 2423
Organ II: PR: MVK 1413 and competence determined by faculty jury. Continuation of MVK 1413. May be repeated for credit.

MVK 3131
Class Piano III: PR: MVK 1121 or C.I. Continuation of MVK 1121.

MVK 3431
Piano III: PR: MVK 2421 and competence determined by faculty jury. Continuation of MVK 2421. May be repeated for credit.

MVK 3433
Organ III: PR: MVK 2423 and competence determined by faculty jury. Continuation of MVK 2423. May be repeated for credit.

MVK 4141
Class Piano IV: PR: MVK 1131 or C.I. Continuation of MVK 1131.

MVK 4441
Piano IV: PR: MVK 3431 and competence determined by faculty jury. Continuation of MVK 3431. May be repeated for credit.

MVK 4443
Organ IV: PR: MVK 3433 and competence determined by faculty jury. Continuation of MVK 3433. May be repeated for credit.

MVK 4640
Piano Pedagogy I: PR: C.I. Methods, materials for teaching individuals and classes of children and adults beginning to intermediate levels; demonstration and observation of procedures. May be repeated for credit.
MVK 4641 Piano Pedagogy II: PR: C.I. Continuation of MVK 4640. Emphasis on intermediate through advanced levels. May be repeated for credit.

MVK 5451 Piano V: PR: C.I.

MVK 5453 Organ: PR: C.I.


MVO 3114 Recorder I: Open to non-music majors. Class instruction in beginning recorder playing.

MVO 3124 Recorder II: PR: C.I. Class instruction in advanced recorder solo and ensemble playing. Open to music students and non-music students who have taken MVO3114.

MVO 5250 Advanced Secondary Instruction: PR: Graduate standing and C.I. Advanced instructional techniques on a secondary instrument or in voice. May be repeated for credit.


MVP 1411 Percussion I: PR: Major in music or consent of chair; audition. May be repeated for credit.

MVP 2421 Percussion II: PR: MVP 1411 and competence determined by faculty jury. Continuation of MVP 1411. May be repeated for credit.

MVP 3431 Percussion III: PR: MVP 2421 and competence determined by faculty jury. Continuation of MVP2421. May be repeated for credit.

MVP 3630 Percussion Pedagogy: PR: Music major, C.I. Teaching methods and materials for percussion students and groups.

MVP 4441 Percussion IV: PR: MVP 3431 and competence determined by faculty jury. Continuation of MVP3431. May be repeated for credit.

MVP 5451 Piano V: PR: C.I.


MVS 1213 Secondary Cello: PR: Consent of Music Chair. CR: Performing ensemble. Advanced instruction in cello. Intended for non-music majors. May be repeated for credit.


MVS 1215 Secondary Harp: Instruction in beginning harp playing.

MVS 1216 Secondary Guitar: PR: Consent of Music Chair. CR: Performing ensemble. Advanced instruction in guitar. Intended for non-music majors. May be repeated for credit.

MVS 1411 Violin I: PR: Major in music or consent of chair; audition. May be repeated for credit.

MVS 1412 Viola I: PR: Major in music or consent of chair; audition. May be repeated for credit.

MVS 1413 Cello I: PR: Major in music or consent of chair; audition. May be repeated for credit.

MVS 1414 Bass I: PR: Major in music or consent of chair; audition. May be repeated for credit.
MVS 1415
Harp I: Major in music or consent of chair; audition. May be repeated for credit.

MVS 1416
Guitar I: PR: Major in music or consent of chair; audition. May be repeated for credit.

MVS 1876
Class Guitar I: Open only to non-music majors. Class instruction in beginning guitar playing.

MVS 2421
Violin II: PR: MVS 1411 and competence determined by faculty jury. Continuation of MVS 1411. May be repeated for credit.

MVS 2422
Viola II: PR: MVS 1412 and competence determined by faculty jury. Continuation of MVS 1412. May be repeated for credit.

MVS 2423
Cello II: PR: MVS 1413 and competence determined by faculty jury. Continuation of MVS 1413. May be repeated for credit.

MVS 2424
Bass II: PR: MVS 1414 and competence determined by faculty jury. Continuation of MVS 1414. May be repeated for credit.

MVS 2425
Harp II: PR: MVS 1415 and competence determined by faculty jury. Continuation of MVS 1415. May be repeated for credit.

MVS 2826
Class Guitar II: Open only to music students or non-music students who have taken Guitar I or C.I. Class instruction in advanced guitar solo and ensemble playing.

MVS 3431
Violin III: PR: MVS 2421 and competence determined by faculty jury. Continuation of MVS 2421. May be repeated for credit.

MVS 3432
Viola III: PR: MVS 2422 and competence determined by faculty jury. Continuation of MVS 2422. May be repeated for credit.

MVS 3433
Cello III: PR: MVS 2423 and competence determined by faculty jury. Continuation of MVS 2423. May be repeated for credit.

MVS 3434
Bass III: PR: MVS 2424 and competence determined by faculty jury. Continuation of MVS 2424. May be repeated for credit.

MVS 3435
Harp III: PR: MVS 2425 and competence determined by faculty jury. Continuation of MVS 2425. May be repeated for credit.

MVS 3436
Guitar III: PR: MVS 2426 and competence determined by faculty jury. Continuation of MVS 2426. May be repeated for credit.

MVS 4441
Violin IV: PR: MVS 3431 and competence determined by faculty jury. Continuation of MVS 3431. May be repeated for credit.

MVS 4442
Viola IV: PR: MVS 3432 and competence determined by faculty jury. Continuation of MVS 3432. May be repeated for credit.

MVS 4443
Cello IV: PR: MVS 3433 and competence determined by faculty jury. Continuation of MVS 3433. May be repeated for credit.

MVS 4444
Bass IV: PR: MVS 3434 and competence determined by faculty jury. Continuation of MVS 3434. May be repeated for credit.

MVS 4445
Harp IV: PR: MVS 3435 and competence determined by faculty jury. Continuation of MVS 3435. May be repeated for credit.

MVS 4446
Guitar IV: PR: MVS 3436 and competence determined by faculty jury. Continuation of MVS 3436. May be repeated for credit.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>AS</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MVS 5451</td>
<td>AS 2(1,0)</td>
<td>Violin V: PR: C.I.</td>
</tr>
<tr>
<td>MVS 5452</td>
<td>AS 2(1,0)</td>
<td>Viola V: PR: C.I.</td>
</tr>
<tr>
<td>MVS 5453</td>
<td>AS 2(1,0)</td>
<td>Cello V: PR: C.I.</td>
</tr>
<tr>
<td>MVS 5454</td>
<td>AS 2(1,0)</td>
<td>Bass V: PR: C.I.</td>
</tr>
<tr>
<td>MVS 5455</td>
<td>AS 2(1,0)</td>
<td>Harp V: PR: C.I.</td>
</tr>
<tr>
<td>MVS 5456</td>
<td>AS 2(1,0)</td>
<td>Guitar V: PR: C.I.</td>
</tr>
<tr>
<td>MVV 1111</td>
<td>AS 1(0,1)</td>
<td>Class Voice: Class instruction in beginning voice. May be repeated for credit.</td>
</tr>
<tr>
<td>MVV 1211</td>
<td>AS 1(0,1)</td>
<td>Secondary Voice: PR: Consent of Music Chair. CR: Performing ensemble. Advanced instruction in voice. Intended for non-music majors. May be repeated for credit.</td>
</tr>
<tr>
<td>MVV 1411</td>
<td>AS 2(1,1)</td>
<td>Voice I: PR: Major in music or consent of chair; audition. May be repeated for credit.</td>
</tr>
<tr>
<td>MVV 2421</td>
<td>AS 2(1,1)</td>
<td>Voice II: PR: MVV 1411 and competence determined by faculty jury. Continuation of MVV 1411. Major in music or consent of chair; audition. Private and class lessons. May be repeated for credit.</td>
</tr>
<tr>
<td>MVV 3431</td>
<td>AS 2(1,1)</td>
<td>Voice III: PR: MVV 2421 and competence determined by faculty jury. Continuation of MVV 2421. May be repeated for credit.</td>
</tr>
<tr>
<td>MVV 4441</td>
<td>AS 2(1,1)</td>
<td>Voice IV: PR: MVV 3431 and competence determined by faculty jury. Continuation of MVV 3431. May be repeated for credit.</td>
</tr>
<tr>
<td>MVV 4640</td>
<td>AS 1(1,0)</td>
<td>Voice Pedagogy I: PR: C.I. Methods, materials for vocalists; teachers, conductors; voice production; diagnosis of problems and correction; demonstration and observation of teaching; beginning to intermediate levels. May be repeated for credit.</td>
</tr>
<tr>
<td>MVV 4641</td>
<td>AS 1(1,0)</td>
<td>Voice Pedagogy II: PR: C.I. Continuation of MVV 4640. Intermediate to advanced levels. May be repeated for credit.</td>
</tr>
<tr>
<td>MVS 5451</td>
<td>AS 2(1,0)</td>
<td>Voice V: PR: C.I.</td>
</tr>
<tr>
<td>MVW 1211</td>
<td>AS 1(0,1)</td>
<td>Secondary Flute: PR: Consent of Music Chair. CR: Performing ensemble. Advanced instruction in flute. Intended for non-music majors. May be repeated for credit.</td>
</tr>
<tr>
<td>MVW 1212</td>
<td>AS 1(0,1)</td>
<td>Secondary Oboe: PR: Consent of Music Chair. CR: Performing ensemble. Advanced instruction in oboe. Intended for non-music majors. May be repeated for credit.</td>
</tr>
<tr>
<td>MVW 1213</td>
<td>AS 1(0,1)</td>
<td>Secondary Clarinet: PR: Consent of Music Chair. CR: Performing ensemble. Advanced instruction in clarinet. Intended for non-music majors. May be repeated for credit.</td>
</tr>
<tr>
<td>MVW 1214</td>
<td>AS 1(0,1)</td>
<td>Secondary Bassoon: PR: Consent of Music Chair. CR: Performing ensemble. Advanced instruction in bassoon. Intended for non-music majors. May be repeated for credit.</td>
</tr>
<tr>
<td>MVW 1215</td>
<td>AS 1(0,1)</td>
<td>Secondary Saxophone: PR: Consent of Music Chair. CR: Performing ensemble. Advanced instruction in saxophone. Intended for non-music majors. May be repeated for credit.</td>
</tr>
<tr>
<td>MVW 1411</td>
<td>AS 2(1,1)</td>
<td>Flute I: PR: Major in music or consent of chair; audition. May be repeated for credit.</td>
</tr>
<tr>
<td>MVW 1412</td>
<td>AS 2(1,1)</td>
<td>Oboe I: PR: Major in music or consent of chair; audition. May be repeated for credit.</td>
</tr>
<tr>
<td>MVW 1413</td>
<td>AS 2(1,1)</td>
<td>Clarinet I: PR: Major in music or consent of chair; audition. May be repeated for credit.</td>
</tr>
<tr>
<td>MVW 1414</td>
<td>AS 2(1,1)</td>
<td>Bassoon I: PR: Major in music or consent of chair; audition. May be repeated for credit.</td>
</tr>
<tr>
<td>MVW 1415</td>
<td>AS 2(1,1)</td>
<td>Saxophone I: PR: Major in music or consent of chair; audition. May be repeated for credit.</td>
</tr>
</tbody>
</table>
Flute II: PR: MVW 1411 and competence determined by faculty jury. Continuation of MVW 1411. May be repeated for credit.

MVW 2422

Oboe II: PR: MVW 1412 and competence determined by faculty jury. Continuation of MVW 1412. May be repeated for credit.

MVW 2423

Clarinet II: PR: MVW 1413 and competence determined by faculty jury. Continuation of MVW 1413. May be repeated for credit.

MVW 2424

Bassoon II: PR: MVW 1414 and competence determined by faculty jury. Continuation of MVW 1414. May be repeated for credit.

MVW 2425

Saxophone II: PR: MVW 1415 and competence determined by faculty jury. Continuation of MVW 1415. May be repeated for credit.

MVW 2426

Flute III: PR: MVW 2421 and competence determined by faculty jury. Continuation of MVW 2421. May be repeated for credit.

MVW 2427

Oboe III: PR: MVW 2422 and competence determined by faculty jury. Continuation of MVW 2422. May be repeated for credit.

MVW 2428

Clarinet III: PR: MVW 2423 and competence determined by faculty jury. Continuation of MVW 2423. May be repeated for credit.

MVW 2429

Bassoon III: PR: MVW 2424 and competence determined by faculty jury. Continuation of MVW 2424. May be repeated for credit.

MVW 2430

Saxophone III: PR: MVW 2425 and competence determined by faculty jury. Continuation of MVW 2425. May be repeated for credit.

MVW 2431

Woodwind Pedagogy: PR: C.I. Methods, materials for teaching individuals and woodwind ensembles.

MVW 4441

Flute IV: PR: MVW 3431 and competence determined by faculty jury. Continuation of MVW 3431. May be repeated for credit.

MVW 4442

Oboe IV: PR: MVW 3432 and competence determined by faculty jury. Continuation of MVW 3432. May be repeated for credit.

MVW 4443

Clarinet IV: PR: MVW 3433 and competence determined by faculty jury. Continuation of MVW 3433. May be repeated for credit.

MVW 4444

Bassoon IV: PR: MVW 3434 and competence determined by faculty jury. Continuation of MVW 3434. May be repeated for credit.

MVW 4445

Saxophone IV: PR: MVW 3435 and competence determined by faculty jury. Continuation of MVW 3435. May be repeated for credit.

NGR 5007C

Advanced Health Assessment: PR: Basic Health Assessment course; current RN license in Florida. Concepts and skills of advanced physical/behavioral health assessment over the life span.

NGR 5110

Theoretical Bases in Nursing: PR: Baccalaureate Degree in Nursing. Exploration and analysis of the philosophical, conceptual and theoretical bases of Nursing.
NGR 5141 HPA 3(3,0)
Pathophysiological Bases for Advanced Nursing Practice: PR: Baccalaureate Degree in Nursing. Critical examination of the physiological and pathophysiological mechanisms affecting individuals.

NGR 5155 HPA 3(3,0)
Health Promotion Across the Life span: PR: Baccalaureate Degree in Nursing. Application of theories and models of health promotion, education, motivation, assessment and planning. Promotion and maintenance of health from conception to death.

NGR 5175 HPA 3(3,0)
Issues in Nursing and Health Care Policy: PR: Baccalaureate Degree in Nursing. Study of selected legal, ethical, socio-cultural, and policy issues related to advanced nursing practice and health care delivery systems.

NGR 5720 HPA 3(3,0)
Organizational Dynamics: PR: Baccalaureate Degree in Nursing. Analysis of theories and models of health care organizational systems. Emphasis on nursing administration roles.

NGR 5721 HPA 3(3,0)
Dimensions of Nursing Administration: PR: Baccalaureate Degree in Nursing. Basic principles and organization theory for nursing administration.

NGR 5810 HPA 3(3,0)
Research Methods in Nursing: PR: Undergraduate statistics course; Baccalaureate Degree in Nursing. Study of research designs, qualitative and quantitative methods commonly used in nursing research. Proposal development and research utilization.

NUR 3065 HPA 3(2,1)
Health Assessment: PR: PCB 3703C, ZOO 3733C or Florida RN License. Concepts of health assessment of clients.

NUR 3105 HPA 3(3,0)
Introduction to Baccalaureate Nursing: Overview of baccalaureate nursing philosophy, objectives, conceptual framework, scope of practice, history, legal and ethical issues.

NUR 3165 HPA 3(3,0)
Critical Inquiry: PR: NUR 3809, NUR 3748C, 3105 and 3065, STA 2014 or 3023. A study of approaches to problematic situations in nursing. Selected experiences in investigating, analyzing, and interpreting nursing research.

NUR 3217C HPA 6(4,2)

NUR 3355C HPA 5(3,2)

NUR 3358C HPA 5(3,2)
Scientific Theories of Nursing III: PR: NUR 3749C, 3795C, 3166. CR: NUR 3796. Theories and practice applicable to the nurse's role in the care of the family from conception through delivery. Focus is on family system.

NUR 3748C HPA 6(3,3)
Concepts Basic to Nursing Practice: PR: Admission to the nursing program and completion of prerequisites. Beginning principles and concepts of nursing theory and practice utilizing the nursing process in selected clinical settings.

NUR 3749C HPA 6(3,3)

NUR 3809 HPA 6(6,0)
Transitional Concepts in Nursing I: PR: Florida RN status. Exploration of issues and theories related to professional nursing practice to facilitate transition of RN to baccalaureate level of nursing practice.

NUR 3826H HPA 3(3,0)
Bioethics: Value and Ethics in Everyday Life: Includes questions concerning human values and ethical questions arising in health care delivery, policy issues, and professional practice among licensed health care practitioners.

NUR 3905 HPA 1-3(1-3,0)
Independent Study: Directed Study.

NUR 4084 HPA 3(3,0)
Transitional Concepts in Nursing II: PR: NUR 3065, 3166, 3809. Enhancement of knowledge from basic Registered Nurse programs and continuation of study from NUR 3809.

NUR 4196 HPA 3(3,0)
Crisis Intervention: Crisis theory and techniques; recognition and intervention in crisis events. Applicable to all areas of nursing and all helping professions.
NUR 4535C
Scientific Theories of Nursing V: PR: NUR 3755C, 3796C or 3709. Theories and principles of psychiatric/mental health nursing. Clinical application in selected settings.

NUR 4635C
Scientific Theories of Nursing VI: PR: NUR 3755C, 3796C or 3709. Theories and principles of public health nursing. Clinical applications in selected settings.

NUR 4820C
Professional Development and Issues: PR: NUR 4756C and NUR 4758C or C.I. CR: NUR 4757C. Diagnosis of professional development and issues relating to the baccalaureate graduate entering professional nursing practice.

NUR 4827
Leadership and Management Principles: PR: NUR 4635C, RN Status or C.I., CR: NUR 4820C, NUR 4xxx (Directed Nursing Pract.) Scientific theories and principles of leadership and management needed to function in leadership, management, and teaching roles in professional nursing. Application of decision making process.

NUR 4827C

NUR 4880
Introduction to Critical Care Nursing: PR: NUR 3749C and NUR 3795C or C.I. Theories and principles of comprehensive nursing care of individuals and families in critical care settings.

NUR 4905C
Nursing Independent Study: PR: NUR 4756C. An opportunity for in-depth study in an area of special interest to the student.

NUR 4906
Independent Study: Directed Study.

NUR 4935
Women's Health Issues: PR: ENC 1102, Junior status, or C.I. Factors and conditions impacting the health of women.

NUR 4941
Selected Nursing Practicum: PR:NUR 4756C and 4758C. An opportunity for in-depth clinical study in an area of special interest to the student.

PAD 3003

PAD 4034
The Administration of Public Policy: PR: ECO 2023. Problems of values, interests, and objectives and their impact on the administration of public programs, stressing the interplay between social values, policies and administration.

PAD 4104
Administrative Theory: A review of the behavioral aspects of the administrative process, its impact on organizational goal achievement and on supervisory strategies. Some social and structural pathologies affecting administrative practice.

PAD 4110
Intergovernmental Administration: Various approaches to studying and explaining the American Intergovernmental system. Emphasis on interorganizational activities, i.e., negotiation, cooperation, and coordination within the legal setting.

PAD 4131
Public Sector Project Management: Various approaches to managing projects, including using scheduling techniques such as GANTT, CPM, and PERT, as well as team building, facilitating, and leadership skills.

PAD 4204
Fiscal Management: PR: C.I. Analysis of methods of securing public funds, the process of budget making, and techniques of management used in managing public funds.

PAD 4351
Issues in Environmental Program Management: The study of environmental policy making processes, programs, and problems through lectures, field study, and research projects.

PAD 4414
Public Personnel Administration: The history, operating components, structural characteristics, and increasing impact of laws and related sanctions on personnel practices of public agencies.

PAD 4720
Survey Research in Public Administration: Introduction to the concepts, design, methodology, computer applications, and data analysis in applied research in the public sector.
PAD 4803

Issues in Urban Administration: To provide students with an understanding of public policy and administrative responses to socioeconomic problems within the urban context.

PAD 4850

Grant and Contract Management: The study of government or public nonprofit agency grant and contract administration and management responding to funding assistance solicitations and grant and contract preparation, evaluation, and presentation.

PAD 4941

Public Administration Internship: PR: C.I. Internship in municipal, county, state, or federal government, including assignments in such fields as personnel, planning, budget, and fiscal, procurement, and public safety.

PAD 5041

Ethics and Values in Public Administration: Examination of ethics in the public sector. Public concerns, past patterns, and individual/social aspects of ethical behavior are explored.

PAD 5336

Introduction to Urban Planning: Issues or urbanization, regional development, land use and comprehensive planning, environmental planning, and social planning.

PAD 5337

Urban Design: Planning techniques such as planned unit developments, capital improvements planning, and growth management, and planning methods, including needs assessment and graphic design.

PAD 5338

Land Use and Planning Law: Review of national and local aspects of the legal underpinnings of urban planning aspects such as zoning, growth management, and environmental regulation.

PAD 5425

Dispute Resolution in the Public Sector: An examination of the skills needed to resolve disputes in the public sector through facilitation, mediation, and other alternative methods.

PAD 5427

Labor Relations in the Public Sector: Current trends and developments in employment relations in the public sector, especially employee organization, negotiations, and the collective bargaining process.

PAD 5806

Local Government Operations: Operational Functions of municipal and county governments and the role of the chief executive officer.

PAD 5807

Administrative Practice in the Public Sector: The application of various theoretical concepts to the "real world" of public administration. Policy formulation and execution are examined through the case study mode.

PCB 3023


PCB 3043

Principles of Ecology: PR: BSC 2010C and BSC 2011C. Elements of ecosystems, biogeochemical cycling, environmental factor interactions, population dynamics, and community development.

PCB 3043L

Principles of Ecology Laboratory: CR: PCB 3043. Field and laboratory investigations of natural ecosystems, with emphasis on current methodology in ecology.

PCB 3063


PCB 3063L

Genetics Laboratory: CR: PCB 3063. Introduction to laboratory techniques of genetics.

PCB 3233

Immunology: PR: BSC2010C. Basic principles of immune reactions, antigen antibody interactions, cell mediated immunity, tumor immunology, and immunotherapy.

PCB 3233L

Immunology Laboratory: CR: PCB 3233. Introduction to laboratory techniques in immunology.

PCB 3301C

Aquatic Biology: PR: BSC 2010 or C.I. An introduction to the plant and animal components of freshwater environments.

PCB 3442

Molecular Biology I: PR: CHM 3211 and MCB 3013 or C.I. The general principles governing the structure and function of both procaryotic and eucaryotic genes.

Human Physiology: PR: BSC 2010C, CHM 2046 or equivalent. The physiology and interrelationships of organ systems of the human body.

Physiochemical Limnology: PR: BSC 2010C or C.I. Introduction to limnology and methods for freshwater ecology, with respect to physical, chemical and biological parameters.

Biological Limnology: PR: BSC 2010C or C.I. Primary and secondary productivity and interaction among factors such as nutrients, pollutants, temperature radiation, turbidity, and seasons.

Molecular Biology II: PR: PCB 3523. The processes regulating gene function in procaryotes and eucaryotes; specialized genetic aspects underlying multi-cellular existence, DNA evolution.

Population Biology and Evolution: PR: PCB 3043 and PCB 3063 or equivalents. The demographic and genetic structure of populations and their relationships to basic aspects of evolution and adaptation.

Animal Physiology: PR: PCB 3023 or C.I. Functions of body processes occurring in animals, with emphasis on vertebrate physiology.

Ecosystems of Florida: PR: PCB 3043, PCB 3043L or equivalent. Ecosystems of Florida will be discussed to include geography, geology, climate, energetics, nutrient cycling, community structure and conservation.


Immunopathology: PR: PCB 3233. In-depth overview of diseases due to deficiencies or over-reactivity of the immune system.

Models in Ecology: PR: BCB 3043, MAC 3311 (or equivalent). A survey of how simulation models are applied to ecological questions of both a theoretical and managerial nature.

Endocrinology: PR: PCB 4723 and BCH 4053 or C.I. Mechanisms of action of hormones; interrelationship between the nervous and endocrine systems.

Interviewing and Counseling: PR: PSY 2013, PPE 3003, CLP 3143 and C.I. A review of various interviewing and counseling theories and techniques used in Mental Health settings as well as practical experience in interviewing and counseling procedures.

Bowling: A study of the fundamentals of bowling techniques and the development of skills based on those fundamentals.

Beginning Golf: Performance and application of basic skills, rules, and etiquette. Physiological and social values accruing from this lifetime sport.

Intermediate Golf: PR: PEL 2121 or equivalent competency. A study of performance and application of intermediate skills, rules, and etiquette. Physiological and social values accruing from this lifetime sport.

Basic Volleyball and Softball: The analysis of offensive and defensive alignment, techniques, and strategies.

Beginning Tennis: Performance and application of basic skills, rules and etiquette. Physiological and social values accruing from this lifetime sport.

Advanced Tennis: PR: PEL 2341 or equivalent competency. A study of performance and application of advanced skills, rules, and etiquette. Physiological and social values accruing from this lifetime sport.
PEL 2640
Basic Football and Basketball: The analysis of offensive and defensive alignment, techniques, and strategies.

PEM 2101
Body Development: An in-depth study of individual physical (musculo-skeletal, neuromuscular, cardiorespiratory) fitness. Emphasis on individual diagnosis, principles, procedures, and conduct of related exercise programs.

PEM 2104
Personal Fitness: Study of personal fitness concepts, with opportunities to develop individual optimal level of fitness and an improved lifestyle through high-level wellness.

PEM 2123
Step Aerobics: Appropriate rhythmical muscle toning movements utilizing the step to develop aerobic fitness. Concepts taught include warm-up, flexibility, work-out, and cool-down.

PEM 2131
Strength Resistance Training: Study of fitness and strength development through resistance exercise.

PEM 2171
Aerobic Dancing: Appropriate rhythmical muscle toning movements that develop aerobic fitness; concepts taught include warm-up, flexibility, stretching, cool down, and heart rate.

PEM 2405
Self Defense for Women and Men: Designed to provide students with self defense skills.

PEO 3011
Team Sports: PR: This course is designed to develop skill proficiency and knowledge to plan, implement and evaluate team sports as part of the Physical Education program.

PEO 3031
Individual Sports and Leisure Activities: This course is designed to develop skill proficiency and knowledge to plan, implement and evaluate individual sports and leisure activities in physical education program.

PEO 3041
Games for the Elementary School Physical Education Program: The understanding, designing, and teaching of low-organizational game-activities for the elementary school child.

PEO 3324
Coaching Volleyball: Theory and methods of coaching volleyball, including the analysis of offensive and defensive alignment techniques and strategies.

PEO 3624
Coaching Basketball: Theory and methods of coaching basketball, including the analysis of offensive and defensive techniques and strategies.

PET 3644
Coaching Football: Theory and methods of coaching football, including the analysis of offensive and defensive techniques and strategies.

PET 3720C
Teaching Physical Education in the Elementary and Middle School (K-8): PR: Admission to Junior Block, or C.I. Curricular and instructional considerations for teaching elementary and middle school physical education.

PET 3740C
Teaching Physical Education in the Secondary and Middle School (6-12): PR: Admission to Junior Block, or C.I. Curricular and instructional considerations for teaching secondary and middle school physical education.

PET 3760

PET 4002
Outdoor and Leisure Activities: Study of contemporary outdoor and leisure activities. Course will include but not be limited to the "adventure activity curriculum," camping, water activities, fishing, orienteering, hiking.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>PET 4035C</td>
<td>Motor Development and Learning: PR:PE Junior standing. An analysis of the theories and factors influencing the motor development of children and the learning of gross and fine motor skills.</td>
<td>ED 3(2,1)</td>
<td></td>
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<tr>
<td>PET 4312</td>
<td>Biomechanics: PR: Anatomy. The comprehension and application of anatomical and mechanical principles involved in human movement.</td>
<td>ED 3(2,1)</td>
<td></td>
</tr>
<tr>
<td>PET 4351</td>
<td>Applied Exercise and Human Physiology: An in-depth study of metabolic, neuromuscular, respiratory and cardiovascular physiological concepts and principles with practical application to physical education and sport.</td>
<td>ED 3(2,1)</td>
<td></td>
</tr>
<tr>
<td>PET 4382</td>
<td>Fitness Assessment and Exercise Physiology: A study and acquisition of health related fitness, exercise strategies and related assessment techniques.</td>
<td>ED 3(2,1)</td>
<td></td>
</tr>
<tr>
<td>PET 4401</td>
<td>Administration and Evaluation in Physical Education: This course is designed to address administrative, measurement and evaluation considerations of physical education programs.</td>
<td>ED 3(3,0)</td>
<td></td>
</tr>
<tr>
<td>PET 4603</td>
<td>Introduction to Sports Medicine: A comprehensive study of care of sports injuries, including instruction in attitudes, health and conditioning in sports participants.</td>
<td>HPA 3(3,0)</td>
<td></td>
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<tr>
<td>PET 4604</td>
<td>Sports Medicine Field Application: Demonstration and application of the treatment for various sports injuries.</td>
<td>HPA 3(3,0)</td>
<td></td>
</tr>
<tr>
<td>PET 4622</td>
<td>Human Injuries: PR: Biomechanics or C.I. The prevention, identification, care, and rehabilitation of human injuries.</td>
<td>ED 3(2,1)</td>
<td></td>
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<tr>
<td>PET 4640</td>
<td>Adapted Physical Education: Principles and methods of adapting physical education activities and programs for exceptional children and adults; mainstreming rationale and methods analyzed.</td>
<td>ED 3(3,0)</td>
<td></td>
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<tr>
<td>PET 4724</td>
<td>Development and History of Physical Education Curriculum: A study of the factors involved in curriculum development and historical and philosophical considerations of physical education programs.</td>
<td>ED 3(3,0)</td>
<td></td>
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<tr>
<td>PET 5355</td>
<td>Exercise Physiology and Health: In-depth study of adaptations of cardiovascular and respiratory systems during varying degrees of exercise.</td>
<td>HPA 3(3,0)</td>
<td></td>
</tr>
<tr>
<td>PGY 3401C</td>
<td>Photography: PR: 18 credits of the art core requirement. Beginning photography, technical and aesthetic basis. Designed for upper division art majors with studio skills. Recommended for art majors.</td>
<td>AS 3(3,0)</td>
<td></td>
</tr>
<tr>
<td>PGY 3610</td>
<td>Photojournalism I: Majors only. Introduction to visual communication. History, picture appreciation, layout and design, picture story development, basic camera operation, and ethics. Camera required.</td>
<td>AS 3(3,0)</td>
<td></td>
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<tr>
<td>PGY 3620</td>
<td>Photojournalism II: PR: PGY 3610. Newspaper Photojournalism. Black and white shooting and processing. Newspaper assignments. 35mm SLR camera required.</td>
<td>AS 3(1,2)</td>
<td></td>
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<tr>
<td>PGY 3630</td>
<td>Photojournalism III: PR: PGY 3620. Color photojournalism. Color shooting and processing for commercial and editorial purposes with electronic strobes in the studio and on location.</td>
<td>AS 3(2,1)</td>
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<tr>
<td>PGY 3640</td>
<td>Photojournalism IV: PR: PGY 3620. The Picture Story. Individual and group projects for extended documentary coverage.</td>
<td>AS 3(1,2)</td>
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<tr>
<td>PGY 3680</td>
<td>Photojournalism V: PR: PGY 3620. Photography Editing. Assignment selection, picture and copy editing, cropping, picture desk management, and ethics of photojournalism, and the new technological advances.</td>
<td>AS 3(3,0)</td>
<td></td>
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<tr>
<td>PGY 4420C</td>
<td>Advanced Photography: PR: ART 2201C, 2202C, and PGY 3401. Designed for upper division art majors with photography concentration. Developing advanced photographic image making skills.</td>
<td>AS 3(2,3)</td>
<td></td>
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<tr>
<td>PGY 4440C</td>
<td>Special Problems in Photography: PR: ART 2201C, 2202C, and PGY 3401C. Designed for upper division art majors with photography concentration. A series of directed photographic problems of a research nature.</td>
<td>AS 3(2,3)</td>
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<tr>
<td>PHH 3041</td>
<td>Russian Philosophy: A study of major themes and developments in Russian philosophy from the 18th century to the present, including critiques of culture, religion, society, and politics.</td>
<td>AS 3(3,0)</td>
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</tbody>
</table>
PHH 3100 AS 3(3,0) Ancient Philosophy; PR: PHI 2010 or C.I. Foundations of Western philosophy in ancient Greek thinking about human beings and nature, including the pre-Socratics, Socrates, Plato, Aristotle.

PHH 3400 AS 3(3,0) Modern Continental Philosophy: Continental European philosophy from the 17th through the 19th century (Descartes to Nietzsche). Rationalism, Kant, and post-Kantian idealism, materialism, and the critique of reason.

PHH 3402 AS 3(3,0) Modern British Philosophy: A study of the major British philosophers from approximately 1600 to 1900. Concentrates on Bacon, Hobbes, Locke, Berkeley, Hume, and Mill.

PHH 3601 AS 3(3,0) Contemporary Continental Philosophy: Current trends in philosophy as represented by the phenomenologists, Frankfurt School, structuralists, ecophilosophers, and postmodern deconstructionists. Examples range from Husserl, Habermas to Foucault, Derrida.

PHH 3620 AS 3(3,0) Contemporary Analytic Philosophy: Anglo-American philosophy oriented toward recent developments by Russell, Wittgenstein, and Kripke, including a study of positivism, ideal and ordinary language, and possible-worlds analysis.

PHI 2010 AS 3(3,0) Introduction to Philosophy: Inquiry into the meaning and justification of fundamental ideas and beliefs concerning reality, knowledge, and values; application to relevant topics in ethics, religion, and politics.

PHI 2010H AS 3(3,0) Honors Introduction to Philosophy: Same as PHI 2010 with honors-level content.

PHI 2011 AS 3(3,0) Philosophical Reasoning: A study of reasoning in philosophy: the role of inconsistency, infinite regress arguments, modeling, and system building, discovery procedures, diagonalization, and contract and paradigm case arguments.

PHI 3022 AS 3(3,0) Sexuality, Gender & Philosophy: Examines the contributions of poststructuralist and neo psychoanalytical theories to cultural issues in sexuality and gender.

PHI 3101 AS 3(3,0) Critical Thinking: The logic of conversation, informal fallacies, and reasoning about human action; with applications to ethics in the professions.

PHI 3130 AS 3(3,0) Formal Logic I: A study of sentence and predicate logics, with introduction to modal, epistemic, deontic, multi-valued, and indeterminant logics.

PHI 3131 AS 3(3,0) Formal Logic II: PR: PHI 3130. Systematic study of propositional and first-order predicate logic; logistic systems and axiomatic methods; problems of metatheory, including consistency, completeness, and decidability.

PHI 3320 AS 3(3,0) Philosophy of Mind: Recent and contemporary attempts to understand the relation of mind to body, the relation of consciousness to personhood, and the relation of psychology to neurobiology.

PHI 3400 AS 3(3,0) Philosophy of Law: Study of the nature and justifications for, law and punishment. Examination of the concepts of legal personhood, rights and responsibilities.

PHI 3600 AS 3(3,0) Ethics: An examination of the nature of moral problems, judgements and principles, with an emphasis on recent formulations in ethical theory.

PHI 3601 AS 1(1,0) Practical Wisdom: A radio course in applied ethics which focuses on the human good, dealing with the relationship between means and ends and how they define one another.

PHI 3700 AS 3(3,0) Philosophy of Religion: An examination of basic ideas, beliefs, attitudes, and functions of religion, with emphasis upon questions of conceptual meaning and cognitive justification.

PHI 3800 AS 3(3,0) Aesthetics: An investigation into the nature of human artistic experience, with special reference to questions of form, perception, and style.
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<tr>
<th>Course Code</th>
<th>AS</th>
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<tbody>
<tr>
<td>PHI 3803</td>
<td>3(3,0)</td>
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<tr>
<td>PHI 3941</td>
<td>3(1,3)</td>
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<tr>
<td>PHI 4360</td>
<td>3(3,0)</td>
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<td>PHI 4400</td>
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<tr>
<td>PHI 4420</td>
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<td>PHI 4804</td>
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<td>PHI 4933</td>
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<tr>
<td>PHM 3100</td>
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<tr>
<td>PHM 4123</td>
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<tr>
<td>PHP 3786</td>
<td>3(3,0)</td>
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<tr>
<td>PHT 3002C</td>
<td>HPA 2(1,3)</td>
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<tr>
<td>PHT 3004</td>
<td>HPA 1(0,2)</td>
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<tr>
<td>PHT 3005</td>
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<tr>
<td>PHT 3006</td>
<td>HPA 1(0,2)</td>
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<tr>
<td>PHT 3069</td>
<td>HPA 3(2,3)</td>
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<tr>
<td>PHT 3110C</td>
<td>HPA 5(3,6)</td>
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</tbody>
</table>

**PHI 3803:** Philosophy and Creativity: A companion course to PHI3800, Aesthetics. Examines the empirical and metaphysical claims made for creativity; attempts to account for intuition, genius, and intelligence.

**PHI 3941:** Philosophy Practicum: PR: C.I. Mentor at-risk grade schoolers three hours weekly and participate in a two-hour class every other week evaluating such work-related concepts as justice and fairness. Pass/Fail grading.

**PHI 4360:** Theories of Knowledge: PR: Philosophy major or C.I. Classical and contemporary theories of knowledge. A critical examination of various forms of, and reasons for, skepticism, criteria for truth and justification for belief.

**PHI 4400:** Philosophy of Science: An examination of the conceptual foundations and methodology of modern science.

**PHI 4420:** Philosophy of Social Science: An examination of the objectives, methods and guiding norms of the social sciences and their role in the development of human knowledge.

**PHI 4500:** Metaphysics: PR: Philosophy major or C.I. Topics include appearance and reality, actions and events, necessity and possibility, identity, nature of persons, mind-body dualism, causality, and free will and determinism.

**PHI 4802:** Critical Theory & Practice I: PR: ENC 1101 & 1102. Recommended prerequisites are PHH 3100 and PHH 3400. The history of aesthetic theory with particular attention to its application in critical interpretation of arts in various media.

**PHI 4804:** Critical Theory & Practice II: PR: Critical Theory & Practice I or C.I. _ PHH 3601 recommended. Critical theory and cultural studies, emphasizing current trends in multiculturalism, neo-Marxism, neo-Freudianism, poststructuralism, and gender studies as they apply to arts in diverse media.

**PHI 4933:** Metaphilosophy: PR: Five history of philosophy courses. Reflection on the nature of philosophy, its relation to other disciplines, and its central questions. Thesis or project required.

**PHM 3100:** Freedom and Justice: Philosophical analysis and evaluation of selected issues arising from the interaction of the individual, society, and the state; includes topics such as freedom, equality, and justice.

**PHM 4123:** Feminist Theory: Study of the evolution of feminist thought and an examination of contemporary issues and perspectives in feminist theory and their relation to divergent feminist practices.

**PHP 3786:** Existentialism: Study of existentialist analysis and criticism of the human situation as found in the writings of such philosophers as Kierkegaard, Nietzsche, Heidegger, Sartre, and Camus.

**PHT 3002C:** Foundations of Physical Therapy I: The role of the therapist in the health care team. Professionalism, professional communication and care-giving skills and attitudes are emphasized.

**PHT 3004:** Patient Practitioner Interaction I: PR: Admission to P.T. program. The two-course sequence will provide theory and skill in promoting effective patient practitioner interaction and interpersonal relations in all aspects of professional practice.

**PHT 3005:** Patient Practitioner Interaction II: PR: Patient Practitioner Interaction I. Continues PT/Pract. I course with emphasis on interaction with the family, health professional community resources and stress management, preventing burn-out, and caring for self.

**PHT 3069:** Introduction to Physical Assessment in P.T.: PR: Satisfactory completion of second semester. Extensive theory and practice in the examination of the patient. Incorporates an organ "systems" approach, utilizing screening exam and patient problem solving.

**PHT 3110C:** Gross Anatomy/Neuroscience: Open to majors only. An in-depth study of human morphology emphasizing the back, spine, spinal cord, cranial nerves, upper and lower extremities, thorax, and abdomen and related neuroanatomy. Regional cadaver dissection integrated with developmental considerations.
Clinical Kinesiology: A multidisciplinary consideration of normal and abnormal human movement, including recognition, measurement, evaluation and characterization from musculoskeletal, neurological and pathological perspectives.

Gross Anatomy/Neuroscience II: PR: PHT 3110C. Continued in-depth examination of human anatomy covering the pelvis, perineum, head and neck combined with basic principles and concepts of neuroanatomy/neurophysiology. Regional cadaver dissection.

Physiology of Therapeutic Exercise: PR: PCB 3703C. Principles of exercise physiology in conditioning and deconditioning integrated into assessment and treatment plans for healthy patients and those with cardiopulmonary musculoskeletal neurological or selected metabolic disease.

Introduction to Patient Care: Open to majors only. Basic skills of patient care; transfers, mobility skills, draping techniques, gait training, and medical terminology. Includes one week of supervised orientation in a clinical facility.


Theory and Procedures of Physical Therapy II: Continuation of Theory and Procedures I. Focus on electrodiagnosis and electrophysiologic assessment and treatment of pain and broad spectrum of disabilities.

Therapeutic Exercise I: Theory and practice in developing, implementing, and evaluating an exercise program for patients with musculoskeletal dysfunction.


Medical Science and Pharmacology I: Organized seminars on the pathophysiology and clinical manifestations of various medical conditions as they relate to medical management in physical therapy practice.

Introduction to Clinical Research: PR: STA 3023. Methods of research applied to clinical environment of physical therapy. Coverage of the language, logic, design and analysis of clinical research.

Clinical Education I: Three weeks of supervised education in clinical facilities. Application of objectives of courses previously completed.

Foundations in Physical Therapy III: Philosophical and theoretical bases of health and illness, health promotion and prevention, the role of physical therapy and the health care delivery system.

Therapeutic Exercise III: Development of care plans for patients with brain/brain stem pathology. Introduction to theoretical applications for Boboth, Brunnstrom, Rood and Voss.

Therapeutic Exercise IV: Application of prosthetic and orthotic components, alignment, fabrication and fitting, with emphasis on the lower extremity. Includes gait analysis and exercise programs.

Medical Science and Pharmacology II: The impact on movement and posture of various orthopedic and neurological disorders; drugs used in their management. Relates neuropathology and orthopedic pathology to the study of movement.


Neurological Problems in Physical Therapy: Analysis of selected neuromotor theories and their clinical applications. Advanced evaluation and treatment procedures. The use of research to determine optimum regimen in treating neurological patients.
PHT 4320
Pedontogeny: PR: PSY 2013, PHT 3142C and PHT 3120. Examination of the psychosocial, gross morphological and neurodevelopmental sequences that provide the baseline for pediatric clinical assessment of individuals from birth to twenty one years of age.

PHT 4370C

PHT 4372

PHT 4410C
Teaching and Learning in Physical Therapy: PR: Enrollment in sequence in the Physical Therapy program. Educating the patient and caregiver concerning the patient’s disability, and treatment regimen and goals. The role of the patient and caregiver in the planning and implementation.

PHT 4510
Management of Physical Therapy Services: PR: Enrollment in sequence in the Physical Therapy program. Planning, organizing, delivering and evaluating physical therapy services within a health care system, including quality assurance, third party payers, DRG's and legislative impact.

PHT 4610

PHT 4620

PHT 4822
Clinical Education II: Six weeks of supervised clinical education in a general hospital setting. All previous education objectives apply and are accumulative.

PHT 4823
Clinical Education III: Clinical practicum in a long-term care setting. Emphasis on gerontology. Supervised by a licensed physical therapist, the student will integrate and apply all previous course work.

PHT 4831
Clinical Internship I: Full-time residence at selected facilities where, under supervision of a licensed therapist, the student may practice and integrate the skills and knowledge from his previous courses.

PHT 4832
Clinical Internship II: Continuation of Clinical Internship I.

PHY 3014C
Physics for Teachers I: PR: C.I. "Hands-on" lecture-laboratory course. Statics, simple machines, density, solar energy, heat, weather, waves, optical reflections, naked eye astronomy.

PHY 3048
Physics for Engineers and Scientists I: PR: MAC 2311, or equivalent. Mechanics, thermodynamics, fluids.

PHY 3048H
Honors Physics for Engineers and Scientists I: PR: MAC 3311 or equivalent. Same as PHY3048 with honors-level content.

PHY 3048L
Physics Laboratory for Engineers and Scientists I: CR: PHY 3048. Laboratory experiments covering selected topics in physics related to PHY 3048.

PHY 3049
Physics for Engineers and Scientists II: PR: MAC 2312 and PHY 3048 or PHY 3048H. Electricity, magnetism, optics.

PHY 3049H
Honors Physics for Engineers and Scientists II: PR: PHY 3048H, MAC 3312. Same as PHY 3049 with honors-level content.

PHY 3049L
Physics Laboratory for Engineers and Scientists II: CR: PHY 3049. Laboratory experiments covering selected topics in physics related to PHY 3049.

PHY 3053C
College Physics I: PR: MAC 1104 and MAC 1114 or equivalent or C.I. Mechanics, waves, thermodynamics.
PHY 3054C  
College Physics II: PR: PHY 3053C. Fluids, electricity and magnetism, optics, x-rays, radioactivity.

PHY 3101  
Physics for Engineers and Scientists III: PR: MAC 2313 and PHY 3049 or PHY 3049H. Thermodynamics, oscillations, modern physics.

PHY 3110H  
Honors Physics for Engineers and Scientists III: PR: PHY 3049 or PHY 3049H. Same as PHY 3101 with honors-level content.

PHY 3221  
Mechanics I: PR: PHY 3048 or PHY 3048H. Particle dynamics, rigid bodies, Lagrangian formulation of mechanics, Hamilton's equations.

PHY 3323  

PHY 3503  
Thermal and Statistical Physics: PR: PHY 3101 or PHY 3101H or C.I. Thermodynamics, kinetic theory, elements of statistical mechanics.

PHY 3722C  

PHY 3752C  

PHY 3802L  
Intermediate Physics Laboratory: PR: PHY 3101 or C.I. Laboratory work in basic measurements of physical constants; experiments in electronics, modern physics, nuclear physics, optics, and solid state physics. May be repeated for credit.

PHY 4222  
Mechanics II: PR: PHY 3221. Hamiltonian dynamics, continuum mechanics, special relativity, special topics.

PHY 4324  
Electricity and Magnetism II: PR: PHY 3323. Dielectrics, magnetic materials, electromagnetic waves, reflection, complex impedance, static solutions to Laplace's Equation, radiation from an accelerated charge and antennae, special relativity.

PHY 4424  
Optics: PR: PHY 3101 and PHY 3323. Wave optics, absorption, stimulated emission, lasers, transforms, coherence, holography.

PHY 4424L  
Optical Physics Laboratory: A laboratory course on geometric optics, interference, diffraction, materials and modern optics.

PHY 4604  

PHY 4605  

PHY 4803L  

PHY 4942C  
Practicum in Physics: PR: C.I. Physics laboratories and demonstrations, and the study of recent research on the learning of physics.

PHY 5015C  

PHY 5081C  

PHY 5100  
Topics in Contemporary Physics for Teachers: PR: C.I. The study of recent findings in a selected area such as particle physics, surface physics, planetary atmospheres, lasers, geophysics, etc.
Newtonian Mechanics for Teachers: PR: C.I. A lab, lecture, demonstration course studying selected topics in classical mechanics.


Electricity for Teachers: PR: C.I. Circuits, multimeters, oscilloscopes, circuit elements.


Electrostatics: PR: PHY 4324, MAP 3302, or C.I. Boundary value problems in electrostatics and magnetostatics. Maxwell equations. EM fields in matter, wave generation and propagation; wave guides, resonant cavities.

Optics for Teachers: PR: C.I. Geometrical and physical optics, spectrometers and lasers.

Optical Properties of Materials: PR: PHY 4324, MAP 3302, PHY 4424. Normal modes (dipole and Raman active); microscopic theory of absorption, dispersion, and refraction; wave propagation, crystal optics; scattering mechanisms; optical activity.

Laser Principles: PR: PHY 3101, MAP 3302, PHY 4424. Classical introduction to the basic principles of laser gain media, properties of resonators and modes, description of specific laser systems.

Modern X-Ray Science: An introduction to the science and applications of modern x-ray optics, x-ray lasers, etc., with a review of basic properties of x-rays.

Wave Motion for Teachers: PR: C.I. Water waves, waves on strings, sound and vibrations.

Thermal Physics for Teachers: PR: C.I. Engines, heat pumps, kinetic theory, phase changes, radiation, weather.


Quantum Mechanics I: PR: PHY 4605 or C.I. Basic postulates of quantum mechanics, operators, eigenvalues, parity, potential wells, harmonic oscillator, time dependent and time independent Schrodinger equation, matrix formulation, time independent perturbation theory.

Introduction to Theoretical Methods of Physics: PR: MAP 3302. Analytical techniques to solve problems of physics.


Computer Methods in Physics for Teachers: PR: C.I. Trajectories with air resistance, trajectories in rotating space colonies, refraction of waves in continuous media, luminosity patterns, temperature profiles.

Nuclear Physics for Teachers: PR: C.I. The interaction of ionizing radiation with matter, alpha, beta, gamma decay, fission, fusion, neutron activation, half lives, and equilibrium.

Nuclear and Particle Physics: PR: PHY 4604 or equivalent. Particles and nuclei, symmetries and conservation laws, interactions, models.

PHZ 5505  Plasma Physics: PR: PHY 4324, or C.l. Introduction to theory and experimental basis of both weakly and highly ionized plasmas. Instabilities, plasma waves, nonlinear effects, controlled thermonuclear fusion.

PHZ 5600  Special Relativity for Teachers: PR: C.l. Length contraction, time dilation, simultaneity, conservation of mass-energy, conservation of momentum, Compton scattering.

PLA 3013  Law and the Legal System: A survey course designed to familiarize the student with the American legal system, ethical considerations, terminology, legal reasoning, and the role of the legal assistant.

PLA 3105  Legal Research: PR: PLA 3013 or C.l. A study of the various research tools used in legal investigation and the methods used to conduct legal research.

PLA 3155  Legal Writing: PR: PLA 3105. A study of legal writing format and technique and the preparation of memoranda and other legal documents, using research skills learned in PLA 3105.

PLA 3203  Civil Practice and Procedure: PR: PLA 3013 or C.l. The student becomes familiar with the Florida civil procedure before trial and acquires the ability to prepare basic pleadings.

PLA 3273  The Law of Torts: PR: PLA 3013 or C.l. Theories governing liability for civil injuries not arising from contractual obligations; systems and procedures used in preparation, trial and appeal of Torts cases.

Criminal Law: Basic concepts of substantive criminal law. The course includes examination of elements of major crimes, criminal responsibility, legal defenses, and parties to crime.

PLA 3304  Property and Real Estate Law: PR: PLA 3013. Study of the law of real and personal property, real estate transactions and conveyances; closing procedures and title problems.

PLA 3308  Criminal Procedure: PR: PLA 3013 or CCJ 3020 or C.l. Rules of criminal procedure, with emphasis on Florida rules, including right to counsel, bail, search and seizure, arrest, identification, trial, and post-trial proceedings.

PLA 3504  The Law of Contracts: Study of the basic law of contracts as developed in Anglo-American law and as changed by modern statutes, including the Uniform Commercial Code. Florida contract law will be emphasized.

PLA 4003  Florida Partnerships and Corporations: Statutory requirements of Florida partnerships and corporations; creation and dissolution of business organizations, responsibilities of officers and basic rights-of stockholders.

PLA 4433  Law and Society: Examination of the relationship between law and American society including the impact on the legal system and legal profession of major social movements.

PLA 4483  Administrative Law: PR: PLA 3013 or PAD 3003. The law regarding governmental agencies with emphasis on the administrative process, Administrative Procedures Acts and special problems of state administrative law.

PLA 4584  Land Use and Environmental Law: PR: PLA 3013, 3504. Study of the law relating to private and public restraints on land use, including planning, zoning, subdivision and building regulations, with emphasis on recent interpretations by judiciary for environmental protection.

PLA 4603  Estates and Trusts: PR: PLA 3013, 3504. A study of wills and trusts, and applicable legal principles of administration of estates through the processes of the Probate Court.
Estate Administration: PR: PLA 4603. Study of the laws and procedures applicable to administration of estates.


Law Office Practices: PR: PLA 3013. Organization, operation and management of law office. Interviewing techniques and practical application of work that is done in a law office.

Domestic Relations Law: PR: PLA 3013, 3504. Role of the legal assistant in all phases of family and juvenile law. Fundamental procedures and principles applied by the courts to family problems.

Juvenile Law and Procedure: PR: PLA 3013 or C.I. Examines both the substantive and procedural law for juvenile delinquency and dependency. Emphasis on Florida law and comparison with other jurisdictions.


Elementary Portuguese Language and Civilization I: Introduces the student to Portuguese culture through the major language skills: listening, speaking, reading, and writing. Open only to students with no experience in this language.

Elementary Portuguese Language and Civilization II: PR: POR 1120 or C.I. Continuation of POR 1120. The course emphasizes the four major language skills: reading, writing, listening, and speaking.

American National Government: A study of the dynamics of American national government, including its structure, organization, powers, and procedures.

Honors American National Government. Same as POS 2041 with honors-level content.


Southern Politics: PR: POS 2041 or C.I. Study of southern politics past and present. Emphasis on factors effecting changes in the region and the states. Southern and national relationship examined.

Public Opinion: A substantive and theoretical study of public opinion, with emphasis on opinion formation, opinion measurement, policy linkages. May include field experiences in polling.

Mass Media and Politics: PR: POS 2041 or C.I. Influence of media on campaigns, public officials, public opinion, the definition of political news, and selected public policies.

Contemporary Revolution and Political Violence: Theories and cases of revolutionary change and political violence in the contemporary world.

Voting and Elections: Theoretical and substantive inquiry into U.S. electoral system; includes focus on voter behavior as well as national and state electoral systems.

The American Presidency: PR: POS 2041 or C.I. Examination of historical and contemporary role of the presidency, including the presidential selection process and the office's evolution in status, powers, administrative responsibilities, leadership, and decision-making.

Congress and the Legislative Process: PR: POS 2041 or C.I. Examination of the Congress as an institution undergoing dynamic change; emphasis upon recruitment of legislators, institutional and informal rules, the committee system, legislative procedures.

Political Parties and Processes: PR: POS 2041 or C.I. In-depth study of the American political party system in the context of changing American politics; topics include development, organization, reforms, legislative and executive roles.
Interest Groups: PR: POS 2041 or C.I. Analyzes the non-electoral behavior of economics, ideological, and citizen groups; political action committees; and the proliferation of interest organizations over the past quarter century.

Scope and Methods of Political Science: Introduction to the scope and methodology of political analysis. Extensive examination of the discipline, research design and methodology.

Metropolitan Politics: Analysis of political patterns, processes, and issues in American communities. Intergovernmental relations and structural and political arrangements in the existing and emerging metropolitan areas.

Political Psychology: The psychological analysis of political behavior, with emphasis on the individual rather than the political system; includes political attitudes and communication, leadership, and personality influences on politics.

Political Socialization: PR: POS 2041 or C.I. Analysis of recruitment and socialization processes. Identification of the agents and processes of political socialization in national and cross-cultural contexts.

Power and Policy in the U.S.: PR: POS 2041 or C.I. Examination of the bases of political power in the U.S. In-depth study of socio-economic political linkages in the policy-making process.

Judicial Process and Politics: Study of the formal and informal judicial process. Legal culture, bureaucratic model, judicial recruitment and outputs, comparative judicial behavior.

Presidential Campaigning: PR: C.I. Introduces the process of candidate selection, convention behavior, actual campaign process and the transition of power.

American Constitutional Law: PR: POS 2041 or C.I. Development of American federalism and national power, commerce clause, and nationalization of the economy.

American Constitutional Law II: PR: POS 2041 or C.I. Development of civil liberties and civil rights in the American federal system.

Politics and Civil Rights: Examination of development and issues of civil rights in the second reconstruction. Course emphasis process and analysis of policy.

Political Science Internship: PR: C.I. Internship working with the national, state, county or municipal government. Assignments with selected civic organization, elected or appointed official.

Quantitative Methods in Political Research: PR: C.I. Methods of model building and research design, including conceptualization and measurement of political variables; techniques of data collection and quantitative analysis and computer usage.

American Political Thought: From its sources to the 20th century, including liberalism, puritanism, the Federalist, the rise of industrialism, resulting social movements, modern variations.

Modern Political Ideologies: A study of modern ideologies since the French Revolution including liberalism, conservatism, capitalism, nationalism, fascism and anarchism.

Political Theory: PR: POS 2041 or C.I. Examination of various normative approaches to the study of political science, stressing contemporary developments in the field.

Ancient, Medieval and Early Modern Political Philosophy: Study of the development of political and social ideas in western thought from early Greece through the 17th century.

Modern Political Philosophy: Study of the development of political and social ideas from the 18th century to the present. May be taken independently of POT 4045 (Ancient, Medieval and Early Modern Political Philosophy).

Contemporary Political Theory: Introduction to the contemporary debate about the status of rights, utilitarianism, and liberalism, and communitarian marxist, libertarian, and feminist critiques of liberalism.
Contemporary Democratic Theory: PR: POS 2041 or C.I. Study of democratic theories, emphasizing liberal democracy and its critics, elitist theories, participatory democracy, citizen participation, and relevance of empirical research to democratic theory.

Marxist Political Theory: Survey of Marx & Engels and other thinkers, exposing the theoretical underpinnings of nations and groups who have adapted marxist principles for governance.

Religion and Politics: PR: Junior standing. Institutional and individual relationship of religion and politics including globalization, fundamentalism, secularization, American exceptionalism, political behavior, and the religious origins of current secular concepts.


Personality Theories: PR: G.A. or C.I. Critical theoretical models of personality development with applications to counseling, psychotherapy and psychological assessment.


Physiological Psychology: PR: PSB 3002 or C.I. An advanced survey of the physiological basis of behavior, emphasizing the relationship between the nervous system and behavior.

Physical Science: PR: MAC 1104 or MGF 1203. Fundamental laws of mechanics, heat, waves, electricity, magnetism; chemical processes and equations, properties of gases, liquids, solids, solutions. Mathematical analysis and logic applied to conclusions inferences.

Physical Science Lab: CR: PSC 1121. Experiments to apply the scientific method to observation and analysis in mechanics, heat, light, electricity and magnetism, chemical and physical transformations.

General Psychology: An introductory survey of the basic principles, theories, and methods of contemporary psychology.

Honors General Psychology: Same as PSY 2013 with honors-level content.

Careers in Psychology: PR: PSY 2013. An examination of various career opportunities in Psychology, including educational entry requirements, and related professional issues. Grades "S" or "U."

Statistical Methods in Psychology: PR: STA 2014. Standard scores, confidence intervals, sampling distributions, hypothesis testing, correlation and regression as applied to research in psychology.


Psychological Measurement: PR: PSY 2013 and STA 2014 or 3023. A study of the theory underlying psychological tests and measurements procedures, including reliability, validity, and item analysis.
Parapsychology: PR: PSY 2013. An examination of the history and development of research on paranormal phenomena, with special emphasis on recent developments in extrasensory perception and psychokinesis.

PSY 3951 
Undergraduate Field Work: PR: C.I. Placement in a community agency for supervised experience in applications of psychology to community problems.

PSY 4215 

PSY 4604 
History and Systems of Psychology: PR: EXP 3404 and PPE 3003. Historical development of psychology, with emphasis on classical theoretical positions.

PUP 3204 
Environmental Politics: An examination of politics and policy-making concerning issues of conservation, pollution and development of land, air, and water resources.

PUP 3314 
Minorities in American Politics: Historical and contemporary role of minority groups in the American political process, including an examination of their electoral significance and relevant legislative, executive, and judicial policies.

PUP 3508 
Introduction to Space Studies: Broad-based multidisciplinary introduction to space studies, providing familiarity with some technical aspects as well as the relationship between technical and public policy considerations.

PUP 4003 
American Public Policy: PR: POS 2041 or C.I. Policy formation, implementation and evaluation, with a focus upon contemporary American problems, including the malapportionment of societal power and social conflict.

PUP 4323 
Women and Politics: An examination of demands for change in the social, political, and economic status of women and the policy response of the system.

PUP 4503 
Government and Science: PR: C.I. Examination of interface between science and government. Focus is upon governmental support for science, social accountability, and the role of the scientist-policy maker in comparative context.

PUP 4510 
Space Policy: An examination of the politics and policy-making involved with the US space program in the context of domestic demands and other international space programs.

PUP 4802 
Politics of Health: PR: C.I. Analysis of public health policies. Primary focus upon political processes, policymakers, and interest group interventions, including consumers and policy outcomes. Comparative health policies.

PUP 4931 
Topics in Public Policy: Intensive analysis of a current policy problem. Sample topics include education, growth management, housing, affirmative action, welfare, and transportation. May be repeated once.

PUR 3100 
Writing for Public Relations: Majors only. PR: Grammar Proficiency Examination, and typing test. Development of skills in writing for public relations.

PUR 4000 
Public Relations: Principles and practice of Public Relations including techniques, research tools, publicity, and management.

PUR 4110 
Public Relations Publications: PR: PUR 4000, PUR 3100. Provides basic principles and techniques of desktop production of public relations publications.

PUR 4800 
Public Relations Campaigns: Majors only. PR: PUR 4000 or C.I. Planning and execution of public relations campaigns for profit and non-profit organizations.

RAT 3001 
RAT 3241
Clinical Radiobiology: Application of the principles and theories of radiobiology to the clinical practice of radiation therapy.

RAT 3242
Oncologic Pathology: PR: Acceptance to program. Study of neoplastic diseases, including causative factors, characteristics, histologic grading, staging and treatment.

RAT 3614
Radiation Therapy Physics I: PR: Acceptance to program. Study of radiation production, properties, interactions, measurement, and protection.

RAT 4247
Radiation Oncology I: Methods of radiation therapy treatment of malignant conditions of the skin, oral cavity, pharynx, sinuses, thyroid, digestive and respiratory systems.

RAT 4248
Radiation Oncology II: Methods of treatment of malignant conditions of the nervous system, eye, reproductive system, urinary system, connective tissue, and lympho-reticular system.

RAT 4619C
Radiation Therapy Physics III: PR: RAT 4618. Study of treatment planning principles and techniques, including multiple beam therapy, rotation therapy, arc therapy, and irregular field techniques.

RAT 4804L
Clinical Education I: PR: RTE 3000, 3111, 3528, 3684, 3804, 3457, 3549, or C.I. Supervised clinical practice in patient care and orientation to radiation therapy simulation, and treatment planning and delivery procedures.

RAT 4814L
Clinical Education II: PR: RAT 4804. Supervised clinical practice in patient care, education, simulation, treatment planning and delivery and utilization of treatment units.

RAT 4824L

RED 3012
Basic Foundations of Reading: PR: Junior standing or C.I. Introduction to reading: principles, procedures, and current practices. Study of specific techniques and materials for word attack and comprehension.

RED 3310
Emerging Literacy: PR: LAE 3504. Admission to program, or C.I. Investigates emergence of reading/writing processes during preschool, kindergarten, and early first grade years.

RED 4311
Development of Literacy: PR: LAE 3504 and RED 3310. Methods for development of reading and writing process during primary (first - third) grades.

RED 4519
Diagnostic and Corrective Reading Strategies: PR: RED 3012 or C.I. and admission to Phase II. An investigation of the needs of individual learners in reading instruction. Organization and techniques for promoting optimum reading growth. Concurrent school experiences required.

RED 5147
Developmental Reading: Principles, procedures, organization, and current practices in the elementary reading program. Materials and methods of instruction.

RED 5514
Classroom Diagnosis and Development of Reading Proficiencies: PR: RED 5147 or equivalent. Classroom diagnosis and corrective teaching in reading; instructional materials. Case study required.

REE 3043
Fundamentals of Real Estate: PR: Junior standing. Emphasis placed upon the application of basic tools of economics, finance, and marketing to solve private and public sector real estate problems. Not usable for credit by Finance majors.

REE 4103
Real Estate Appraisal and Valuation: PR: FIN 3403. Focus on the fundamentals of real estate valuation utilizing tools of financial and economic analysis.

REE 4204
Real Estate Finance: PR: FIN 3403. Focus on the fundamentals of real estate finance utilizing tools of financial and economic analysis.

REE 4303
Real Estate Investment Analysis: PR: FIN 3403. Focus on real estate decision-making in the private sector utilizing tools of financial and economic analysis.
REE 4433  BA 3(3,0)
Real Estate Law: PR: Junior standing. An analysis of real estate law with emphasis on Florida statutes and case law.

REL 2300  AS 3(3,0)
World Religions: Basic features and historical background on Confucianism, Taoism, Hinduism, Buddhism, Judaism, Christianity, and Islam.

REL 3600  AS 3(3,0)
Studies in Judaism: An inquiry into the foundations and development of Jewish thought in various parts of the world.

RET 3026C  HPA 4(3,3)
Introduction to Respiratory Care. PR: Admission to the professional upper-division Respiratory Therapy Program. Fundamental respiratory principles and practices will be studied. Introduction to the profession and basic methods are covered. Lecture and lab.

RET 3264C  HPA 3(2,3)
Mechanical Ventilation: PR: RET 3026C. Function and use of mechanical ventilators, patient evaluation methods. All forms of ventilatory support will be studied. Lecture and laboratory.

RET 3483  HPA 1(1,1)
Respiratory Disease Assessment: PR: RET 3026C. Physical examination of the chest, demonstrating equipment use, methods and theory. Chest radiography will be extensively covered. Lecture and demonstration.

RET 3484C  HPA 4(3,3)

RET 3174  HPA 3(3,0)
Pediatric Respiratory Care: PR: RET 3026. The study of childhood respiratory diseases, congenital problems, infections, metabolic disorders, and AIDS.

RET 3874  HPA 5(1,1,16)

RET 3875  HPA 8(1,24)
Clinical Practice II: PR:C.I. Patient care with advanced respiratory equipment. Tracheostomy care. Introduction to cardiopulmonary resuscitation. Introduction to critical care units. Advanced life support techniques and equipment.

RET 4034  HPA 3(3,0)

RET 4244  HPA 3(3,0)

RET 4284  HPA 3(3,0)
Cardiopulmonary Diagnostics I: PR: RET 4244C. Non-invasive cardiac diagnostics, including echocardiography, nuclear cardiology, and stress testing.

RET 4285  HPA 3(3,0)
Cardiopulmonary Diagnostics II: PR: RET 4244C and RET 4284C. Invasive cardiac diagnostic and therapeutic measures, including cardiac catheterization, PTCA, streptokinase use, and heart surgery.

RET 4414C  HPA 4(3,3)
Pulmonary Function Studies: PR: RET 3026C. Detailed procedures and tests to provide information for diagnosis of pulmonary disease. Lecture-laboratory.

RET 4441  HPA 4(3,3)
Vascular Ultrasound: Study of application of ultrasound in the diagnosis of vascular diseases. Includes doppler and color flow doppler examination of arterial and venous systems.

RET 4443  HPA 4(3,3)
Advanced Cardiac Ultrasound: PR: RET 4284 or C.I. Study of advanced applications of ultrasound in the diagnosis of cardiac abnormalities. Two-dimensional echo, conventional doppler, and color doppler covered.

RET 4503  HPA 3(3,0)
Chest Medicine: PR: RET 3026. Disease states treated medically in conjunction with one or more modalities of respiratory therapy.


SELECTED TOPICS IN RESPIRATORY THERAPY: PR: C.I. Current topics of adult critical care, as they apply to the advanced study of respiratory therapy.

RET 5910 Research Methods in Cardiopulmonary Physiology: Introduction to methods used in scientific and medical research in cardiopulmonary physiology. Literature review, experimentation, and data analysis.

RMI 3011 Principles of Risk and Insurance: PR: FIN 3403. Emphasis is on insurance as a risk-handling device, with attention given to risk assumption, risk avoidance, and loss prevention.

RTE 1000 Introduction to Radiologic Sciences: Study of medical imaging and radiation therapy principles and procedures. For prospective and beginning majors in Radiologic Sciences.

RTE 3000 Introduction to Radiologic Sciences: PR: Admission to Radiologic Sciences program. Orientation to career field, radiation protection, principles and procedures of medical imaging and radiation therapy.


RTE 3111C Introduction to Patient Care: PR: Acceptance to the program. Provides the student with fundamentals of patient care methods related to radiography.

RTE 3367 Medical Physics: PR: RTE 3684C or C.I. Study of radiation production, characteristics, detection and measurement, and protection, including barrier thickness calculation and shielding.

RTE 3418C Principles of Radiographic Exposure I: An introduction to the technical variables influencing radiographic and fluoroscopic image quality, including equipment considerations, prime exposure factors, image receptors, and accessory exposure devices.

RTE 3457C Principles of Radiographic Exposure II: PR: RTE 3418 or C.I. Study of technical and photographic processing variables influencing conventional, radiographic and digital image quality.

RTE 3503C Radiographic Procedures I: PR: Admission to the program. Provides fundamental knowledge of radiographic positioning, equipment manipulation, and quality evaluation of radiographic studies of the chest, abdomen, routine contrast studies, and the upper extremity.

RTE 3513C Radiographic Procedures II: PR: RTE 3503C or C.I. Continuation of radiographic positioning, equipment manipulation, and quality evaluation of radiographic studies of the shoulder, bony thorax, lower extremity, vertebral column, cranium, and facial bones.

RTE 3504 Clinical Education I: PR: RTE 3111C or C.I. Supervised clinical practice in radiographic procedures, radiation protection, patient care, equipment.

RTE 4207 Methods in Radiology Management: Concepts of radiology, department management, including principles, personnel management, evaluation and improvement techniques, budgeting, financial considerations and legal aspects, and JCAH quality assurance specifications.

RTE 4209 Radiological Administrative Practice: A directed practice in the management of a radiology department, with application of theory and methodology.

RTE 4386 Radiobiology: PR: RTE 3367C. A study of the effects of ionizing radiation on biologic systems. The responses at the cellular and total organism level are investigated.
RTE 473
Quality Improvement: PR: Registered technologist or Senior standing. The study of quality improvement and quality control from the perspective of radiology services.

RTE 4563
Special Radiographic Procedures: PR: RTE 3513C or C.I. Principles of nonvascular invasive procedures, including myelography, cholangiography, hysterosalpingography, and bronchography.

RTE 4573
Advanced Imaging Modalities: PR: RTE 3563 or C.I. A study of the physical principles and applications of computed tomography, digital imaging, interventional radiography, mammography, ultrasound, magnetic resonance imaging, and nuclear medicine.

RTE 4473
Quality Assurance: PR: RTE 3367C or C.I. Quality control evaluation of radiographic, fluoroscopic and tomographic imaging systems. Implementation procedures, equipment selection criteria, and processing quality control are also addressed.

RTE 4763
Anatomy for the Medical Imaging: A study of the normal anatomical structures and interrelationships of structures as demonstrated in a radiographic and cross-sectional imaging reference.

RTE 4782
Pathophysiology: PR: C.I. The study of radiologic science in the diagnosis and treatment of disease.

RTE 4814L
Clinical Education II: PR: RTE 3804. Supervised clinical practice in radiographic/fluoroscopic procedures with emphasis on examinations of the chest, abdomen, extremities and shoulder girdle.

RTE 4824L
Clinical Education III: PR: RTE 4814. Supervised clinical practice in radiographic/fluoroscopic procedures with emphasis on examinations of the pelvis, thoracic cavity, vertebral column and portable and surgical radiography.

RTE 4834
Clinical Education IV: PR: RTE 4824. Supervised clinical practice in radiographic/fluoroscopic procedures with emphasis on examinations of the cranium, facial bones, and specialized procedures.

RTE 4844
Clinical Education V: PR: RTE 4834. Supervised clinical practice in radiographic/fluoroscopic procedures with emphasis on surgical and special procedure examinations.

RTE 4854
Advanced Clinical Practicum: PR: RTE 4824. Supervised clinical experience and/or practice in computed tomography, interventional, vascular, and magnetic resonances imaging.

RTE 4903
Directed Study in Radiologic Education: PR: EVT 3371 or EDG 4321 or C.I. Directed activity in classroom instruction in radiologic technology.

RTV 3000
Foundations of Broadcasting: Nature of the media, the mechanics of operation, history, economics, programming, and internal and external control.

RTV 3200
Broadcast Techniques: Majors only. PR or CR: RTV 3000. Introduction to audio production and multicamera video production. Instruction in audio mixers, microphones, and tape recorders and TV studio production equipment (cameras, switchers, etc.)

RTV 3210
Radio Production: Majors only. PR: RTV 3200 or C.I. The production of music (live and recorded), talk, interview, discussion, sports, and documentary, including performance (talent and announcing) and direction.

RTV 3223
Lighting for Video: Majors only. PR: RTV 3200. Basic lighting techniques for both studio and location, single and multicamera video production.

RTV 3231
Broadcast Announcing and Performance: Majors only. PR: RTV 3200 or C.I. A study of communication problems on camera and microphone. Development of performance skills in announcing, interviewing, narrating, and reporting. Lab TVA.

RTV 3260
Electronic Field Production/Video Editing: Majors only. PR: RTV 3200. Introduction to non-studio video instruction. Electronic field production and electronic news gathering. Utilization of portable video equipment and control track videotape editing equipment.

RTV 3263
Advanced Video Post-Production: Majors only. PR: RTV 3260 and C.I. Concentration on A/B roll editing, digital video effects and electronic graphics. Introduction to non-linear video editing systems.

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<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>RTV 3300</td>
<td>Broadcast Newswriting</td>
<td>Majors only. PR: Grammar Proficiency Examination and departmental typing exam. The study and practice of writing news for radio and television.</td>
</tr>
<tr>
<td>RTV 3301</td>
<td>Advanced Broadcast Newswriting</td>
<td>Majors only. PR: RTV 3300. The writing of in-depth news items, including documentaries, features, and investigative materials.</td>
</tr>
<tr>
<td>RTV 3501</td>
<td>Broadcast Copywriting</td>
<td>Majors only. PR: Grammar Proficiency Examination and School Typing Exam. Preparation of written public service and commercial copy for radio and television.</td>
</tr>
<tr>
<td>RTV 3810</td>
<td>Broadcast Promotion</td>
<td>Majors only. PR: RTV 3200. Examination of techniques that stations use to keep listeners and viewers and to attract new ones. Use of advertising and merchandising.</td>
</tr>
<tr>
<td>RTV 3942</td>
<td>Television Practicum</td>
<td>Majors only. PR: RTV 3200 and C.I. Primarily an activity course. Student will serve in some position of responsibility for UCF Weekly News or other TV activity. Can be repeated.</td>
</tr>
<tr>
<td>RTV 4206</td>
<td>Television Directing</td>
<td>Majors only. PR: RTV 3200 and RTV 3260. Preparation and direction of programs, with emphasis on dramatic values of composition.</td>
</tr>
<tr>
<td>RTV 4270</td>
<td>Radio Production and Programming</td>
<td>Majors only. PR: RTV 3200 or C.I. The study and production of current radio formats and their effects on today's radio listener.</td>
</tr>
<tr>
<td>RTV 4301</td>
<td>Television News</td>
<td>Majors only. PR: RTV 3200 or C.I. Practical application of TV news theory.</td>
</tr>
<tr>
<td>RTV 4403</td>
<td>Radio, Television and Society</td>
<td>PR: RTV 3000 for RTV majors. A study of the impact of electronic media upon the habits, customs, and thinking of our times. Considerations of internal media problems.</td>
</tr>
<tr>
<td>RTV 4404</td>
<td>International Broadcasting</td>
<td>PR: RTV 3000. Comparative analysis of national broadcast systems. World broadcasting as a social, political, and economic force.</td>
</tr>
<tr>
<td>RUS 1120</td>
<td>Elementary Russian Language and Civilization I</td>
<td>Introduces the student to Russian culture through the major language skills: listening, speaking, reading and writing. Open only to students with no experience in this language.</td>
</tr>
<tr>
<td>RUS 1121</td>
<td>Elementary Russian Language and Civilization II</td>
<td>PR: RUS 1120, or experience with this language. Continuation of RUS1120.</td>
</tr>
<tr>
<td>RUS 2210</td>
<td>Intensive Russian Conversation</td>
<td>PR: One year of Russian or equivalent. Practical use of the language, leading toward fluency and correctness in speaking.</td>
</tr>
<tr>
<td>RUS 2230</td>
<td>Intermediate Russian Language and Civilization I</td>
<td>PR: RUS 1121 or equivalent. Development of language skills and cultural knowledge at the intermediate level.</td>
</tr>
<tr>
<td>RUS 2231</td>
<td>Intermediate Russian Language and Civilization II</td>
<td>PR: RUS 2230 or equivalent. Continuation of RUS2230, with emphasis on Russian civilization.</td>
</tr>
<tr>
<td>RUS 3240</td>
<td>Russian Conversation</td>
<td>PR: RUS 2231 or equivalent. Development of skills in conversation and comprehension through practice. This course may be repeated for credit. When repeated, credit will apply to general electives only.</td>
</tr>
<tr>
<td>RUS 3420</td>
<td>Russian Composition</td>
<td>PR: RUS 2231 or equivalent. Development of skills in composition. This course may be repeated for credit. When repeated, credit will apply to general electives only.</td>
</tr>
<tr>
<td>RUS 3500</td>
<td>Russian Culture</td>
<td>PR: RUS 1120 or C.I. Introduction to the main epochs and events in the history of Russian culture with particular emphasis on customs, traditions, and the arts.</td>
</tr>
</tbody>
</table>
RUS 4411
Advanced Russian Conversation: PR: RUS 3240. An advanced conversation course on directed topics from various domains of public life and disciplines.

RUS 4421

RUS 3100
Survey of Russian Literature I: PR: RUS 2231. A survey course of the major Russian writers and poets from Pushkin to Turgenev.

RUW 3101
Survey of Russian Literature II: PR: RUS 2231. A survey course of the major Russian writers and poets from Dostoevsky to the present.

RUW 3370

RUW 4330
Russian Poetry: PR: RUS 2231. A survey of Russian poetry from Zhukovsky to the present.

RUS 3100 AS 3(3,0)
Survey of Russian Literature I: PR: RUS 2231. A survey course of the major Russian writers and poets from Pushkin to Turgenev.

RUW 3101 AS 3(3,0)
Survey of Russian Literature II: PR: RUS 2231. A survey course of the major Russian writers and poets from Dostoevsky to the present.

RUW 3370 AS 3(3,0)

RUW 4330 AS 3(3,0)
Russian Poetry: PR: RUS 2231. A survey of Russian poetry from Zhukovsky to the present.

RUS 3100 AS 3(3,0)
Survey of Russian Literature I: PR: RUS 2231. A survey course of the major Russian writers and poets from Pushkin to Turgenev.

RUW 3101 AS 3(3,0)
Survey of Russian Literature II: PR: RUS 2231. A survey course of the major Russian writers and poets from Dostoevsky to the present.

RUW 3370 AS 3(3,0)

RUW 4330 AS 3(3,0)
Russian Poetry: PR: RUS 2231. A survey of Russian poetry from Zhukovsky to the present.

RUS 4480 AS 3(3,0)

RUW 4481 AS 3(3,0)

SCE 3310 ED 4(4,0)
Teaching Science in Elementary School: PR: Junior standing or C.I. Selected concepts; organizing for instruction; techniques; evaluation procedures.

SCE 4023 ED 3(3,0)
Teaching Science and Technology to Young Children: Provides the knowledge and skills needed to plan and implement a discovery science/design technology program for young children in an integrated, interactive curriculum.

SCE 4360 ED 4(3,2)
Science Instructional Analysis: PR: EDG 4321 or C.I. Course objectives for a school curriculum and methods and materials for the middle grades and high school.

SCE 5716 ED 3(3,0)
Methods in Elementary School Science: Organization of instruction in elementary school science including methods, evaluation, materials, strategies, and current practices.

SCE 5825 ED 3(3,0)
Space Science for Educators: PR: Senior standing or C.I. Introduction to space science, manned space flight and space education curriculum.

SLS 1501 ED 3(2,1)
Strategies for Success in College: This course is designed to address the development of life-skills necessary for the contemporary student to appropriately adjust to college requirements that lead to self-mastery and the total concept of lifetime wellness.

SLS 2311 AS 1(0,2)
Overview of Select Medical Careers: An overview of the pre-health professions process for careers in medicine, dentistry, veterinary medicine, optometry, pharmacy, podiatry, and chiropractic. Graded "S" or "U."

SOP 3004 AS 3(3,0)

SOP 3724 AS 3(3,0)
The Psychology of Racial Prejudice: PR: PSY 2013. Examination of literature relating to prejudice toward ethnic groups; effects of racism on individuals, development and maintenance of prejudice, and possible ways to reduce prejudice.

SOP 3742 AS 3(3,0)
Psychology of Women: PR: PSY 2013. Examination of the psychological impact of changing sex roles on women in modern society. Topics include child rearing, working women, and sex differences in personality and cognition.

SOP 3772 AS 3(3,0)


SOW 3203: Social Welfare and Community Resources: Study of social welfare, programs and services, including forces affecting changes in societal responses to human needs. Open to non-majors and pending social work majors.

SOW 3300: Practice I: Generalist Practice in Social Work: Study of social work functions, knowledge, values, and skills. Development of ability to use a generalist model of practice.

SOW 3352: Practice II: Interpersonal Skills in Social Work: PR or CR: SOW 3300. Study and practice of interviewing, group leadership, written communication, and oral presentations, in consensual as well as conflictual contexts of social work.

SOW 3401: Social Work Research: PR: CGS 1060C. Study of quantitative and qualitative methods of building knowledge for social work and the ethical use of research in professional practice.

SOW 3420: Social Work with Minorities: Study of oppressed groups and relevant social work interventions; skill development in work with, and in behalf of, people of minority groups.


SOW 4341: Micro-Level Roles and Interventions in Social Work: PR: SOW 3300, SOW 3352. Study and simulated practice of roles and tasks in systemic problem solving with individuals, families and supportive and remedial groups.

SOW 4343: Macro-Level Roles and Interventions in Social Work: PR: SOW 3300, SOW 3352. Study and simulated practice of roles and tasks in systemic problem solving to obtain and improve social welfare resources within organizations and communities.

SOW 4431: Evaluating Social Work Practice and Service Programs: PR: SOW 3401, SOW 3300. The study of systematic data collection and of measurement of change in individuals, families, groups, programs, and communities.

SOW 4510: Field Education: PR: Completion of required courses in major; GPA 2.5 in major. CR: SOW 4522. Supervised learning experiences in agencies which relate social work practice to theory, involving 420 clock hours in the field.

SOW 4522: Field Education Seminar: PR: Completion of required courses in major; CR: SOW 4510. Weekly seminar to examine the field experience and to relate theory with practice situations.

SOW 4562: Social Work in Health Settings: Study of social work roles, interventions, and issues related to helping patients in health settings.

SOW 4645: Social Services for the Elderly: Development of interventive skills for obtaining, providing, and improving social services in behalf of elderly persons and their families. Open to non-majors but not pending social work majors.


SOW 5105: Human Behavior and Social Environment I: Individual and study of human development and psychosocial functioning of individuals at various life stages with particular attention to implications of human diversity.
SOW 5106
Human Behavior and Social Environment II: Social Systems: Study of the patterns and dynamics of families, groups, organizations, and communities from a social work and a systems perspective.

SOW 5132
Client Populations: Study of human diversity, focusing on the needs, resources, problems and service issues of several identified minority client populations.

SOW 5235
Social Welfare Policies and Services: Study of societal responses to human needs; forces shaping social welfare systems; and frameworks for analyzing social policies and programs.

SOW 5305
Social Work Practice I: Generalist Practice: Study of social work functions, knowledge, values, roles and skills; the use of a generalist model of practice.

SOW 5306
Social Work Practice II: Intervention Approaches: Study of selected social work theories, strategies, and techniques for helping people and improving system responsiveness to human needs.

SOW 5356
Studies in Urban Social Work Practice: Analysis of one or more urban practice issues and approaches. May be repeated for credit.

SOW 5373
Clinical Supervision: Supervisory theory and practice in clinical settings.

SOW 5404
Social Work Research: Study of group research designs in social work; quantitative analyzers, and related ethical issues.

SOW 5432
Evaluating Social Work: Study of single case designs in social work; recording methods; behavioral and standardized measures; applications to individuals, families, groups, programs, communities.

SOW 5532
Field Education I: Generalist Practice: CR: SW Practice I. Supervised practice of social work in an agency for 224 clock hours.

SOW 5533
Field Education II: Interventions: PR: SOW 5532 Field Education I. CR: SW Practice II. Continuation of SOW 5532 Field Education I in the same field agency for 224 clock hours.

SOW 5572
Social Work with Women; Alternative approaches to the treatment of women in the urban setting.

SOW 5565
Child Abuse: Treatment and Prevention: The social worker’s role and interventions with victims of child abuse and their family members.

SOW 5566
Strategies in Employee Assistance Programs: Techniques for establishing, providing, and evaluating services to people with problems which affect job performance.

SOW 5712
Interventions with Substance Abusers: Strategies for working with persons who abuse drugs, alcohol, and other substances.

SPA 3000

SPA 3002
Introduction to Communicative Disorders: Etiology, symptoms, and methods of diagnosing and treating communicative disorders. For beginning and prospective majors in communicative disorders.

SPA 3050
Clinical Observation and Practice: PR: SPA 3550. C.I. Observation and supervised participation in speech pathology and audiology in the university clinic and local clinics. May be taken twice for credit.

SPA 3101
Physiological Bases of Speech and Hearing: PR:SPA 3002. An introduction to the anatomical, physiological, and physical elements underlying the communication process.

SPA 3112
Basic Phonetics: Physiological descriptions and visual notation of speech patterns and regional dialects.

SPA 3112L
Basic Phonetics Laboratory: Students will have practical experiences in transcription of normal and deviant speech.
SPA 3333 HPA 3(3,0)
Introduction to Signed English and Culture of the Deaf: Vocabulary and grammar through introductory level. Conceptual basis of ASL discussed.

SPA 3550 HPA 3(3,0)

SPA 3550L HPA 1(0,2)
Clinical Methods in Communicative Disorders Laboratory: Students will have practical experience in analysis of live and videotaped diagnosis and therapy sessions.

SPA 4011 HPA 3(3,0)
Fundamentals of Speech and Hearing Science: Lectures and demonstrations in basic acoustics and speech acoustics. Measurement of sound level and resonance. Discussion of vocal frequency, speech duration and intensity, spectrographic analysis, wave composition, speech recognition, and voice quality.

SPA 4032 HPA 3(3,0)
Audiology I: Introduction to physics of sound, anatomy of hearing mechanism, pure tone audiometry, hearing aids, problems of the hearing handicapped. Clinical skills development will be required.

SPA 4033 HPA 3(3,0)
Audiology II: PR: SPA 4030. An overview of medical aspects of hearing loss, electrophysiological audiometry, and other differential diagnostic testing.

SPA 4201 HPA 3(3,0)

SPA 4201L HPA 1(0,2)
Communicative Disorders: Articulation Laboratory: Students will have practical experience in diagnosis and treatment in articulation disorders.

SPA 4251 HPA 3(3,0)

SPA 4251L HPA 1(0,2)
Organic Speech Disorders Laboratory: Students will have practical experience in observations of organic speech disorders.

SPA 4310 HPA 3(3,0)
Audiology II:PR: SPA 4032. An overview of medical aspects of hearing loss, electrophysiological audiometry, and other differential diagnostic testing.

SPA 4321 HPA 4(4,0)

SPA 4380 HPA 3(3,0)
Introduction to American Sign Language: Development of ASL vocabulary and grammar. Deaf culture, literature, research examined.

SPA 4381 HPA 3(3,0)
Intermediate American Sign Language: Expansion of ASL vocabulary with increased development of knowledge concerning deaf culture.

SPA 4382 HPA 4(3,1)
Intermediate American Sign Language: Conversation. Emphasis on refining fluency receptively and expressively. Practicum with the deaf community.

SPA 4402 HPA 3(3,0)

SPA 4402L HPA 1(0,2)
Communicative Disorders: Language Laboratory: Students will have practical experience in diagnosis and treatment in language disorders.

SPA 4412 HPA 3(3,0)
Augmentative Communication Systems: PR: LIN 3710, SPA 4032. Students will learn the rudiments of nonverbal communication systems, for example, Bliss, Rebus, Manual Singing, Language Boards, and finger spelling.

SPA 4554 HPA 3(3,0)
Therapeutic Communication: Practical interviewing and counseling in the area of communicative disorders.

SPA 4941 HPA 1(1,1)
Practicum in Communicative Disorders.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Prerequisites</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPA 5005</td>
<td>Survey of Communicative Disorders</td>
<td>HPA 3(3,0)</td>
<td>A survey of speech, language, and hearing disorders for habilitative personnel and other interested professionals.</td>
</tr>
<tr>
<td>SPA 5120</td>
<td>Physiological Acoustics</td>
<td>HPA 4(4,3)</td>
<td>PR: SPA 4032; Graduate status or C.I. Lectures, readings, and experiments pertaining to the subjective reception of sound.</td>
</tr>
<tr>
<td>SPA 5225</td>
<td>Fluency Disorders</td>
<td>HPA 3(3,0)</td>
<td>PR: Graduate status or C.I. Identification and evaluation of disorders of rhythm. Emphasis will be on methods of intervention in disorders of fluency.</td>
</tr>
<tr>
<td>SPA 5226L</td>
<td>Fluency Disorders Laboratory</td>
<td>HPA 1(0,2)</td>
<td>PR: Graduate status or C.I. Practical application of clinical skills in fluency disorders.</td>
</tr>
<tr>
<td>SPA 5307</td>
<td>Differential Diagnosis of Auditory Disorders</td>
<td>HPA 3(3,0)</td>
<td>PR: SPA 4032; Graduate status or C.I. Clinical techniques in pure tone speech, acoustic impedance, and electrohydriodic response audiometry.</td>
</tr>
<tr>
<td>SPA 5327</td>
<td>Aural Habilitation/Rehabilitation</td>
<td>HPA 4(4,0)</td>
<td>PR: Graduate status or C.I. Principles and procedures involved in speech and language acquisition management, utilization of residual hearing, speech reading, and the use of hearing aids.</td>
</tr>
<tr>
<td>SPA 5404</td>
<td>Language Disorders: Preschool</td>
<td>HPA 3(3,0)</td>
<td>PR: Graduate status or C.I., LIN 4710, SPA 4402. Graduate students will apply their knowledge of the normal processes of language development to the diagnosis and intervention of communicative impairments of infants and toddlers.</td>
</tr>
<tr>
<td>SPA 5600</td>
<td>Administration and Management of Communicative Disorders Programs</td>
<td>HPA 3(3,0)</td>
<td>PR: SPA 3002. Methods and techniques for organization and administration of speech-language and hearing disorders in public school, hospital, rehabilitation center, and private practice facilities.</td>
</tr>
<tr>
<td>SPA 5805</td>
<td>Research in Communicative Disorders</td>
<td>HPA 3(3,0)</td>
<td>PR: STA 4163, graduate status or C.I. Introduces the student to empirical research in the area of communicative disorders. Emphasis is on hypothesis testing, methodology, analysis, and interpretation of results.</td>
</tr>
<tr>
<td>SPC 1600</td>
<td>Fundamentals of Oral Communication</td>
<td>AS 3(3,0)</td>
<td>PR: University Honors Program. Same as SPC 1600 with honors-level content.</td>
</tr>
<tr>
<td>SPC 1600H</td>
<td>Honors Fundamentals of Oral Communication</td>
<td>AS 3(3,0)</td>
<td>PR: University Honors Program. Same as SPC 1600 with honors-level content.</td>
</tr>
<tr>
<td>SPC 3301</td>
<td>Interpersonal Communication</td>
<td>AS 3(1,2)</td>
<td>Nature of the communication process; variables affecting the process and the individuals involved. Analysis of communication models, interactant behavior, situational cues, verbal and non-verbal messages.</td>
</tr>
<tr>
<td>SPC 3425</td>
<td>Group Interaction and Decision-Making</td>
<td>AS 3(2,1)</td>
<td>A study of small group processes. Attention is given to problem solving, leadership emergence, conformity behavior, and group member role responsibilities.</td>
</tr>
<tr>
<td>SPC 3445</td>
<td>Leadership Through Oral Communication</td>
<td>AS 3(3,0)</td>
<td>PR: COM 3120. A theoretical and practical investigation of leadership in oral communication situations, principles of parliamentary law, and approaches to problem solving.</td>
</tr>
<tr>
<td>SPC 3511</td>
<td>Argumentation and Debate</td>
<td>AS 3(1,2)</td>
<td>PR: SPC 1600 or C.I. Study and practice in the preparation and delivery of argumentative speeches emphasizing argument, evidence, and organization.</td>
</tr>
<tr>
<td>SPC 3601</td>
<td>Advanced Public Speaking</td>
<td>AS 3(1,2)</td>
<td>PR: SPC 1600 or C.I. Advanced training in selecting and organizing materials for various types of speeches. Practice in thinking and speaking before audiences.</td>
</tr>
<tr>
<td>SPC 4330</td>
<td>Nonverbal Communication</td>
<td>AS 3(3,0)</td>
<td>Review of current behavioral research in such areas as proxemics, kinesics, physical characteristics, tactile communication, and paralanguage. Lectures are supplemented by frequent nonverbal exercises.</td>
</tr>
</tbody>
</table>
SPC 4350 AS 3(3,0)
Studies in Listening: Analysis of current trends, professional literature, and resource materials bearing upon the teaching of listening. Practice in listening; preparing listening experiences; oral and written reports.

SPC 4440 AS 3(3,0)

SPC 4540 AS 3(3,0)
Attitudes and Communication: A survey of the immediate and direct ways in which persuasive communications and social groups come to influence attitudes.

SPC 5200 AS 3(3,0)
Evolution of Communication Theory: General Survey: Major communication trends from classical era to the present. Comparison of Aristotelian and non-Aristotelian rhetorics. Contributions of principal figures will be discussed.

SPN 1120 AS 4(4,1)
Elementary Spanish Language and Civilization I: Introduces the student to Spanish culture through the major language skills: listening, speaking, reading and writing. Open only to students with no experience in this language.

SPN 1121 AS 4(4,1)
Elementary Spanish Language and Civilization II: PR: SPN 1120 or experience with this language. Continuation of SPN 1120.

SPN 1170 AS 8(16,10)
Elementary Spanish Study Abroad: Elementary Spanish language and civilization taught in the native environment.

SPN 2140 AS 3(3,0)
Business Spanish I: Spanish language and culture for beginning Spanish language students from a business professional perspective. Emphasis on communicative skills in a professional setting. (Does not fulfill University foreign language requirement.)

SPN 2230 AS 3(3,1)
Intermediate Spanish Language and Civilization I: PR: SPN 1121 or equivalent. Development of language skills and cultural knowledge at the intermediate level.

SPN 2231 AS 3(3,1)
Intermediate Spanish Language and Civilization II: PR: SPN 2230 or equivalent. Continuation of SPN 2230, with emphasis on Spanish civilization.

SPN 2240 AS 3(3,1)
Intensive Spanish Conversation: PR: One year of Spanish or equivalent. Practical use of the language, leading toward fluency and correctness in speaking at the intermediate level.

SPN 3141 AS 3(3,0)
Business Spanish II: PR: C.I. Continuation of Business Spanish I.

SPN 3142 AS 3(3,0)
Business Spanish III: PR: C.I. Continuation of Business Spanish II.

SPN 3241 AS 3(3,0)
Spanish Conversation: PR: SPN 2231 or equivalent. Development of skills in conversation and comprehension through practice. This course may be repeated for credit. When repeated, credit will apply to general electives only.

SPN 3340 AS 3(3,0)
Spanish for Native Speakers: PR: Must be a native speaker. Intensive Spanish for native speakers who have had little or no formal training in the language.

SPN 3402 AS 3(3,0)
Practice in Modern Spanish Grammar: PR: SPN 3241 or 3420. This intensive Spanish course will provide the advanced student with practice and drill in modern Spanish using native texts.

SPN 3420 AS 3(3,0)
Spanish Composition: PR: SPN 2231 or equivalent. Development of skills in composition. This course may be repeated for credit. When repeated, credit will apply to general electives only.

SPN 3800 AS 3(3,0)
Spanish Translation and Interpretation: PR: Completion of 2000 level sequence or equivalent. Introduction to translation and interpretation, practical applications of theory applied to professional written and audio texts from Spanish to English and from English to Spanish.

SPN 4143 AS 3(3,0)
Business Spanish IV: PR: C.I. Advanced course in business terminology and development of advanced language skills.

SPN 4410 AS 3(3,0)
Advanced Spanish Conversation: PR: SPN 3241. Advanced conversation on directed topics from various disciplines: literature, art, psychology, philosophy, music, business, and the sciences.
SPN 4421 Advanced Spanish Composition: PR: SPN 3420. Readings and written imitations of modern literary styles in the form of themes, sketches, poems, and original stories.

SPN 4510 SPN 3241 or SPN 3420. A study of Spanish civilization and culture from Pre-Roman times to the present. Conducted in Spanish.

SPN 4520 Latin American Civilization and Culture: PR: SPN 3241 or SPN 3420. An overview of the currents in Latin American culture and civilization from the Pre-Columbian period to the present. Conducted in Spanish.

SPN 4780 Spanish Phonetics: PR: SPN 3241 and 3420. Students will learn the basic principles of Spanish pronunciation and perfect the correct pronunciation of Spanish through intensive practice and oral drill.

SPN 4800 Spanish-American Syntax: The course examines the Spanish language from its beginning to the present, with special emphasis as it is written and spoken in Latin America and the U.S.

SPN 4801 Spanish Morphosyntax: PR: SPN 3100 or 3101 or 3130 or 3131 or 3420. Emphasizes the structure as well as the capacity for recognizing the differences between semantics, morphology, syntax, and phonology in the Spanish language, as well as the use and correct application of criterion when analyzing texts. Taught in Spanish.

SPN 5920 AP Spanish Language: Participants will enhance their knowledge of the language and culture of Spanish-speaking peoples and develop further proficiency in listening, comprehension, speaking, reading, and writing.

SPW 3000H Nobel Prize Literature: Spain and Latin America: PR: Honors, Junior standing or C.I. Students will analyze, discuss and research English translations of Spanish and Latin American Nobel-Prize-Winning writers. Through readings, students will explore the universality of Spanish literature.

SPW 3100 Survey of Spanish Literature I: PR: SPN 2231 or equivalent. Main literary currents and works from the Middle Ages through the Eighteenth century.

SPW 3101 Survey of Spanish Literature II: PR: SPN 2231 or equivalent. Main literary currents and works of the Nineteenth century to the present.

SPW 3130 Survey of Latin-American Literature I: PR: SPN 2231 or equivalent. Main literary currents and works from the colonial period to the Nineteenth Century Romanticism.

SPW 3131 Survey of Latin-American Literature II: PR: SPN 2231 or equivalent. Main literary currents and works of the Nineteenth century from the Realism to the present.

SPW 3320 Modern Hispanic Theatre Workshop I: PR: Departmental consent. Introduction to fundamental actor's technique and practice in Spanish. Short scenes will be performed in class.


SPW 3370 Spanish Short Story: PR: SPN 2231 or equivalent. A study of representative 19th and 20th-century Spanish short stories and their authors.

SPW 4272 20th Century Spanish Novel: PR: SPN 3101 or 3131. Major works by the leading authors of the 20th century. Texts selected are studied not only for their aesthetic value, but also in terms of their historical and cultural significance.


SPW 4364 Latin-American Narrative/Essay: PR: SPW 3100 or SPW 3130 or SPW 3131 or SPW 3370. Study of Latin-American narrative/essay (changing topics by semester) with emphasis in the 20th century texts, contrasting techniques, procedures, and literary theories. Course could be reoffered when topic changes.
SPW 4381 AS 3(3,0)
Latin-American Theatre/Poetry: PR: SPW 3100 or SPW 3101 or SPW 3130 or SPW 3131 or SPW 3370. Study of Latin-American theatre/poetry (changing topics by semester) with emphasis in the 20th century texts, contrasting techniques, procedures, and literary theories. Course could be reoffered when topic changes.

SPW 4450 AS 3(3,0)
Spanish Literary Theory: PR: SPN 3420 or equivalent. A study of textual criticism with emphasis in the theory of genre.

SPW 4460 AS 3(3,0)
Nineteenth Century Spanish Literature: PR: SPW 3101. A study of the representative authors and works in Spanish Romanticism, Realism, and Naturalism.

SPW 4480 AS 3(3,0)
Twentieth Century Spanish Literature: PR: SPW 3101. A study of the representative authors and works in drama and the novel.

SPW 4600 AS 3(3,0)
Cervantes I: PR: SPW 3100. Don Quixote.

SPW 4720 AS 3(3,0)
The Generation of 1898: PR: SPW 3101. A study of the generation’s main authors and their works.

SPW 4730 AS 3(3,0)
Hispanic Literature of the United States: PR: SPN 3241 and 3420. Reading and study of outstanding works written by Hispanic writers of the United States.

SPW 4770 AS 3(3,0)
Caribbean Spanish Literature: An overview of the literature of the Spanish-speaking Caribbean countries from colonial times to the present.

SSE 3312 ED 4(4,0)
Teaching Social Science in the Elementary School: PR: Admission to Phase II or C.I. Selected themes, problems, and concepts; organizing for instruction; techniques; evaluation procedures.

SSE 4361 ED 4(3,2)
Social Science Instructional Analysis: PR: EDG 4321 or C.I. Study of instructional programs in social sciences; objectives; materials; techniques; organization of instruction; evaluation procedures; current research for the middle grades and high school.

SSE 5115 ED 3(3,0)
Methods in Elementary School Social Science: Study of instructional programs in social sciences; objectives; materials; techniques; current research; and their application in elementary school setting.

STA 2014 AS 3(3,0)

STA 3023 AS 3(3,0)
Statistical Methods I: PR: MAC 1104 or MGF 1203. First methods course introducing probability and statistical inference, including estimation, hypothesis testing, binomial and normal distributions, sample size.

STA 3023H AS 3(3,0)
Honors Statistical Methods I: PR: Honors Program Student; Calculus desired by not necessary. Same as STA 3023 with honors-level content.

STA 3032 EN 3(3,0)
Probability and Statistics for Engineers: PR: MAC 3312 and computer programming. Axions of probability; combinatorial and geometrical probability; probability distributions; measures of location and dispersion; sampling and sampling distributions; estimation and tests of hypotheses; engineering applications.

STA 3096 AS 3(3,0)
Statistical Graphics: PR: STA 3023 or STA 3032 and a knowledge of a programming language. Principles of graph construction, graphical perception, graphical methods, computer programs for graph construction.

STA 4102 AS 3(3,0)
Computer Processing of Statistical Data: PR: STA 4163 and knowledge of a programming language. Use of packages such as SAS, BMD, SPSS for data validation, description and analysis of data, regression and analysis of variance and covariance.

STA 4154 AS 4(4,0)
Statistical Methods II for Scientists: PR: STA 3023 or STA 3032. Methods for analyzing data, design of experiments nonparametric methods, categorical analysis, model building, covariance analysis, strong emphasis on use of a computer package.
STA 4163  Statistical Methods II: PR: STA 3023 or STA 3032. Methods of analyzing data, statistical models, estimation, tests of hypotheses, regression and correlation, an introduction to analysis of variance, chi-square, and nonparametric methods.


STA 4165  Statistical Methods II with Computer Emphasis: PR: STA 3023 or STA 3032. Methods for analyzing data, design of experiments nonparametric methods, categorical analysis, model building, covariance analysis, strong emphasis on use of a computer package.

STA 4173  Biostatistical Methods: CR: STA 4163. Introduction to the application of statistical principles and methods to problems in medical, biological, and health sciences.

STA 4202  Design of Experiments: PR: STA 4163 or C.I. Methods of constructing and analyzing designs for experimental investigations, concepts of blocking, randomization, replication, confounding in factorial experiments, incomplete block designs.


STAT 4321  Statistical Theory I: PR: STA 3023 or STA 3032; CR: MAC 3313. Probability axioms, discrete and continuous sample spaces, conditional probability, independence, one-dimensional random variables, moment generating functions, transformations, jointly distributed random variables.


STA 4502  Nonparametric Statistical Methods: PR: STA 3023 or STA 3032. Distribution-free tests on location and dispersion, goodness of fit tests, tests of independence, measures of association, nonparametric analysis of variance.

STA 4664  Statistical Quality Control: PR: STA 3023 or STA 3032. Statistical concepts and methods applied to the control of quality of manufactured products.


STA 5156  Probability and Statistics for Engineers: PR: STA 3032 or equivalent. Theory and applications of discrete and continuous random variables, hypothesis tests, confidence intervals, regression analysis and correlation.

STA 5205  Experimental Design: PR: STA 4164, STA 5206, STA 5156. Construction and analysis of designs for experimental investigations. Blocking, randomization, replication; Incomplete block designs. Factorial and fractional designs; design resolution.

STA 5206  Statistical Analysis: PR: STA 3023; not open to students who have completed STA 4164. Data analysis; statistical models; estimation; tests or hypotheses; analysis of variance, covariance, and multiple comparisons; regression and nonparametric methods.

STA 5695  Categorical Data Methods: PR: STA 4163 or STA 5206. Considers discrete probability distributions, contingency tables, measures of association, and advanced methods, including loglinear modeling, logistic regression, McNemar's Test, Mantel-Haenszel test.


SUR 3101C  Surveying: PR: MAC 3311 and Junior standing. Theory and field practice in surveying measurements and the reduction and adjustment of field data.
SYA 3110  The Development of Social Thought: PR: SYG 2000. An overview of theories concerning the nature of man as a "social being." The nature of society from the beginnings of the scientific study of man's life to World War II.

SYA 3120  Modern Sociological Thought: PR: SYG 2000. A study of major European and American contributors to modern sociology since World War II.

SYA 3300  Research Methods: PR: SYG 2000 and SYA 3400 (may be taken concurrently). Emphasis on types of sociological data collections, sampling techniques, grant proposal development, critical evaluation of social research, and relationship between theory and social research.

SYA 3400  Research Methods and Statistics: PR: SYG 2000 and one other sociology course.

SYA 4450  Data Analysis: PR: SYA 3300 and SYA3400. Advanced social research design and analytical skills. Emphasis on social data management, various modes of social data analysis, interpretation, integration, presentation, and report writing.


SYA 5625  ProSeminar: Survey of conceptual issues, methodological concerns, and findings in substantive sociological areas that currently dominate scholarly inquiry, including such topics as crime, deviance, community, alcoholism, education.


SYD 3700  Race and Ethnic Minorities in the United States: Theoretical analysis of the emergence, maintenance, and disruption of patterns of racial and ethnic stratification.

SYD 3800  Sex Roles in Modern Society: The traditional and changing roles of women and men viewed in a sociological perspective.

SYD 4020  Population: Concerned with the study of human population, its distribution, composition, and change.

SYG 2000  General Sociology: Introduction to the sociological perspective and the scientific study of sociological concepts, theories, processes, and methods used in understanding contemporary human behavior in group interaction.

SYG 2000H  General Sociology: Extensive honors work in the field of Sociology. Expectations, requirements, and standards are greater than for standard General Sociology.

SYG 3010  Social Problems: Analysis of major social problems such as mental disorders, sexual deviance, racial discrimination, poverty, community disorganization, and violence.


SYO 3360  Social Organization and Human Relations: Analysis of business, government, and industrial organizations. Topics include organizational theory, social systems, social structure, effects of technology, motivation, leadership, decision-making, and human relations.

SYO 3410  Sociology of Mental Illness: A sociological examination of mental illness as a social problem; legal aspects of mental illness, and the mental health professions.

SYO 3530  Social Stratification: PR: SYG 2000. Study of class, status and power, cultural variations in stratification systems; patterns of mobility and change.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SYO 4250</td>
<td>Sociology of Education: PR: SYG 2000.</td>
<td>This course examines the sociological dimensions of the educational institutions, including the impact of the social structure on learning and the role of education in social change.</td>
</tr>
<tr>
<td>SYO 4300</td>
<td>Political Sociology:</td>
<td>Sociological analysis of political and parapolitical groups; socioeconomic variable of voting behavior, power elites; societies and systems of government.</td>
</tr>
<tr>
<td>SYO 4400</td>
<td>Medical Sociology:</td>
<td>Analysis of patient beliefs and behavior, health practitioners, the social organization of hospitals and health services, contemporary problems in the delivery of health care.</td>
</tr>
<tr>
<td>SYP 3300</td>
<td>Collective Behavior: PR: SYG 2000.</td>
<td>Analysis of relatively unstructured social situations, such as mobs, crowds, etc. as well as more structured forms of collective behavior such as social movements.</td>
</tr>
<tr>
<td>SYP 3500</td>
<td>Sociology of Deviant Behavior:</td>
<td>An examination of the nature, types, and societal reactions to deviant behavior; special emphasis on the process of stigmatization and the emergence of deviant subcultures.</td>
</tr>
<tr>
<td>SYP 3520</td>
<td>Criminology:</td>
<td>Chief causes of anti-social behavior and current methods of prevention and reform. Effects of heredity and environment, prevalence of delinquency and crime, penal institutions.</td>
</tr>
<tr>
<td>SYP 3530</td>
<td>Juvenile Delinquency:</td>
<td>Types of delinquency behavior found among juveniles; possible causes and ways society attempts to treat the various forms of delinquency.</td>
</tr>
<tr>
<td>SYP 3540</td>
<td>Sociology of Law:</td>
<td>The relationship between law and society, including the functions of law and its organization, social and economic consequences, jury selection, and modern trends.</td>
</tr>
<tr>
<td>SYP 3550</td>
<td>Sociology of Alcoholism:</td>
<td>Introduction to the nature of alcoholism and review of its impact on society.</td>
</tr>
<tr>
<td>SYP 3562</td>
<td>Sociology of Popular Music:</td>
<td>This course examines the role of popular music in the process of social change and in reflecting American culture. Consideration is given to the nature of the popular music business.</td>
</tr>
<tr>
<td>SYP 3600</td>
<td>Sociology and Sport:</td>
<td>Utilization of sociological concepts and theories to investigate sport as a social institution. Includes subjects of racism, sexism, drug abuse, violence, and current issues of sport.</td>
</tr>
<tr>
<td>SYP 4500</td>
<td>Sociology of Drug Abuse:</td>
<td>Analysis of the socio-culture elements of the drug culture.</td>
</tr>
<tr>
<td>SYP 4750</td>
<td>Sociology of Aging:</td>
<td>Sociological aspects of aging in America.</td>
</tr>
<tr>
<td>TAX 3000</td>
<td>Personal Income Tax:</td>
<td>A study of federal income tax designated to convey basic tax concepts and skills related to the individual taxpayer. Not open to accounting majors.</td>
</tr>
<tr>
<td>TAX 4001</td>
<td>Federal Income Tax I: PR: Junior standing and ACG 3101 with a grade of &quot;C&quot; or better or C.I. Concepts and methods of determining taxable income of individuals, and selected topics.</td>
<td></td>
</tr>
<tr>
<td>TAX 5015</td>
<td>Federal Income Tax II: PR: ACG 3111, TAX 4001 and meet graduate school admission requirements. Concepts and methods of determining taxable income for partnerships and corporations, and selected topics.</td>
<td></td>
</tr>
</tbody>
</table>
THE 1020H AS 3(3,0)

THE 1925 AS 2(2,4)
Basic Technical Skills: PR: None. Not restricted to theatre majors but requires Departmental consent. Practical course in the proper and safe use of all stage equipment, hand, and power tools. Required of all theatre majors.

THE 2925 AS 1(0,4)

THE 2926 AS 1(0,4)
Theatre Practicum II: PR: THE 2925. Not restricted to theatre majors but requires Departmental consent. Participation on UCF Theatre productions. Required of all theatre majors.

THE 3110 AS 3(3,0)
Theatre History I: PR: None. Open to non-majors. Study of the development of theatre arts from pre-history through the seventeenth century. Required of all theatre majors.

THE 3111 AS 3(3,0)
Theatre History II: PR: THE 3110. Open to non-majors. Study of the development of theatre arts from the seventeenth century to the present. Required of all theatre majors.

THE 3243 AS 3(3,0)

THE 3300 AS 3(3,0)
Script Analysis: PR: None for majors. Non-majors require Departmental permission. Exploration of dramatic form and structure by learning to read, analyze, and understand playscripts for productions. The study of the playscript as a blueprint for production. Required of all theatre majors.

THE 3305 AS 3(3,0)

TPA 2200 AS 3(3,4)

TPA 2204 AS 3(3,4)
Stagecraft II: PR: TPA 2200. Continuation of TPA 2200. Production crew as required. Required of all theatre majors.

TPA 2248 AS 2(2,2)

TPA 3043 AS 3(3,1)
Costume History: PR: THE 3111. Restricted to theatre majors or Departmental consent. Lecture/laboratory study of costume and fashion from ancient to modern times. A study of the principal historical periods with an emphasis on basic period silhouette, costume parts and accessories, materials and colors.

TPA 3060 AS 3(2,2)
Scenic Design I: PR: TPA 2204 and two semesters of art. Restricted to B.F.A. theatre majors or B.A. theatre majors with Departmental consent. Lecture/laboratory application of the fundamentals of design, composition, color theory, drafting, perspective drawing and rendering as they relate to scenic design. Required of all technical theatre/design majors.

TPA 3061 AS 3(2,2)
Scenic Design II: PR: TPA 3060. Restricted to B.F.A. technical theatre/design majors or Departmental consent. Continuation of TPA 3061. An intensive, practical scenic design course dealing with various theatrical styles, genres, multiple and simultaneous settings. Includes script analysis and project design work with an emphasis on visualization of design concepts through models and scenic renderings. Required of all B.F.A. technical theatre/design majors.

TPA 3077 AS 2(2,2)
Scene Painting: PR: TPA 2204. Restricted to B.F.A. technical theatre design majors or Departmental consent. Study of the art and craft of painting for the theatre. Study of period designs and execution of examples selected from a variety of styles. Required of all B.F.A. technical theatre/design majors.

TPA 3197 AS 3(0,60)
Stage Lighting: PR: TPA 2204. Restricted to B.F.A. theatre majors or B.A. theatre majors with Departmental consent. Study of basic electricity, optics, lighting equipment and control, and stage lighting techniques and practices. Service on a lighting crew as required. Required of all technical theatre/design majors.

Lighting Design: PR: TPA 3220. Restricted to B.F.A. theatre majors or B.A. theatre majors with Departmental consent. Continuation of Stage TPA3220. Lecture/laboratory with emphasis on lighting design theory, style and individual lighting design projects. Required of all B.F.A. technical theatre/design majors.

Costume Construction: PR: THE 1925. Restricted to B.F.A. theatre majors or B.A. theatre majors with Departmental consent. Lecture/laboratory study of the basic techniques used in the drafting, cutting, fitting, and construction of stage costumes. Required of all technical theatre/design majors.


Advanced Makeup Techniques: PR: TPP 2248. Restricted to B.F.A. theatre majors or B.A. theatre majors with Departmental consent. Lecture/laboratory of basic techniques needed for the creation of stage and film prosthetics and masks.

CADD for Theatre: PR: TPA 2200, TPA 3060. Restricted to B.F.A. majors or Departmental consent. Projects oriented course covering fundamental material in computer aided drafting and design and its application for Theatre. Required of all technical theatre/design majors.

Advanced CADD for Theatre: PR: TPA 3250. Restricted to B.F.A. majors or Departmental consent. Continuation of TPA3250 with special emphasis placed on 3-Dimensional aspects and applications of computer aided drafting and design for Theatre.


Stage Management: PR: TPP 2100, THE 2300, TPA 2200, TPA 2204. Restricted to theatre majors or Departmental consent. Examination of the importance, function, and responsibilities of the stage manager prior to, during and after performance. Introduction to the fundamentals of stage management as related to Departmental productions as well as professional union requirements. Includes prompt books, rehearsal, and performance procedures, and stage management forms and formats.

Costume Design: PR: TPA 2204, 3043 and two semesters of art. Restricted to B.F.A. majors. Lecture/laboratory application of the fundamentals of design, composition, color theory, and figure drawing as they relate to costume design. Includes script/character analysis and project design work with an emphasis on visualization of design concepts and costume renderings. Required of all B.F.A. technical theatre/design majors.

Advanced Design: PR: TPA 3061 and 3221 and 4049. Restricted to B.F.A. technical theatre/design majors or Departmental consent. Continuation of design series with emphasis on planning, design, and execution of scenery, lighting, and/or costume designs.


Theatre Management: PR: TPA 2204. Restricted to theatre majors or Departmental consent. Study of the development, organization, management, funding, and promotion of theatre programs. Additional emphasis placed on management theory and style.

Technical Theatre/Design Internship: PR: Restricted to B.F.A. technical theatre/design majors. The internship is subject to Departmental approval. Off-campus internship programs provide opportunity for practical work in professional theatre. Contact the Departmental office for specific requirements.
TPP 2100  AS 3(3,0)
Introduction to Acting: PR: None. Restricted to theatre majors or Departmental consent. Basic introduction to the fundamentals of acting with emphasis upon the development of imagination, self-awareness, sense memory, improvisation, and the ability to execute basic stage tasks.

TPP 2170  AS 3(2,2)
Acting I - Fundamentals: PR: THE 1020, 1925, 2300, TPP 2100, 3511. Restricted to B.F.A. theatre majors or Departmental consent. Lecture/laboratory study of the basic principles and techniques of acting, with particular emphasis on characterization and character development. Short scenes will be performed before the class.

TPP 2510  AS 2(2,2)
Stage Movement I: PR: None. Restricted to theatre majors or Departmental consent. Study of physical alignment techniques, centering, warm-ups methods, and exploration of movement dynamics as they relate to acting. Techniques will be drawn from dance, basic tumbling, tai chi chuan, improvisation and pantomime. Essentially a laboratory course. All students must receive a grade of "C" or above to continue in the stage movement sequence.

TPP 2710  AS 2(2,2)
Voice Production I: PR: None. Restricted to theatre majors or Departmental consent. Essentially a laboratory study of principles and practice of the effective speaking or stage voice. Extensive practice in body reinforcement, voice production, placement, resonation, articulation, vowel and consonant formation. Begin work on students' individual speech problems. All students must receive a grade of "C" or above to continue in the voice production sequence. Required of all theatre performance majors.

TPP 3172  AS 3(2,2)
Acting II - Characterization: PR: TPP 3511, 2170, 3711. Restricted to B.F.A. theatre performance majors or Departmental consent. Lecture/laboratory study for advanced work in characterization and character development and basic audition processes.

TPP 3190  AS 1(0,20)

TPP 3191  AS 1(0,20)

TPP 3197  AS 3(0,60)
Summer Theatre/Performance: PR: None. Not restricted to theatre majors but requires Departmental consent. Participation in UCF Summer Theatre Productions.

TPP 3310  AS 3(2,2)
Directing I: PR: THE 1925, 2300, 2925, 3111, 3305, TPP 2100, and TPA 2204. Restricted to theatre majors. Lecture/laboratory study of fundamentals principles and techniques of play direction to include script selection, directorial analysis, casting, composition/picturization, blocking and movement, tempo/rhythm, preparation of prompt scripts, rehearsal planning. Directed short scenes for class presentation and critique. Required of all theatre majors.

TPP 3510  AS 2(2,2)
Stage Movement I: PR: None. Restricted to B.F.A. theatre majors or Departmental consent. Study of physical alignment techniques, centering, warm-ups methods, and exploration of movement dynamics as they related to acting. Techniques will be drawn from dance, basic tumbling, tai chi chuan, improvisation and pantomime. Essentially a laboratory course. All students must receive a grade of "C" or above to continue in the stage movement sequence.

TPP 3511  AS 2(2,2)
Stage Movement II: PR: TPP 3510. Restricted to B.F.A. theatre majors or B.A. majors with departmental consent. Continuation of Stage Movement I. Must be taken sequentially with TPP3510. All students must receive a grade of "C" or above to continue in the stage movement sequence. Required of all theatre performance majors.

TPP 3512  AS 2(2,2)
Stage Movement III: PR: TPP 3511. Restricted to B.F.A. theatre majors. Continuation of Stage Movement II. Attention given to period movement, movement styles and dance. All students must receive a grade of "C" or above to continue in the stage movement sequence. Required of all theatre performance majors.

TPP 3710  AS 2(2,2)
Voice Production I: PR: None. Restricted to B.F.A. theatre majors or Departmental consent. Essentially a laboratory study of principles and practice of the effective speaking or stage voice. Extensive practice in body reinforcement, voice production, placement, resonation, articulation, vowel and consonant formation. Begin work on students' individual speech problems. All students must receive a grade of "C" or above to continue in the voice production sequence. Required of all theatre performance majors.
Voice Production II: PR: TPP 3710. Restricted to B.F.A. theatre majors or Departmental consent. Continuation of Voice Production I with continued emphasis on corrective coaching of individual speech problems. Must be taken sequentially with TPP3710. All students must receive a grade of "C" or above to continue in the voice production sequence. Required of all theatre performance majors.

Voice Production III: PR: TPP 3711. Restricted to B.F.A. theatre performance majors or Departmental consent. Continuation of Voice Production II. Emphasis placed on the unique demands of the communication of dramatic verse text. Particular attention given to diction and the use of emphasis to illuminate poetic language. All students must receive a grade of "C" or above to continue in the voice production sequence. Required of all theatre performance majors.

Voice Production IV/Dialects: PR: TPP 3712. Restricted to B.F.A. performance majors or Department consent. Continuation of Voice Production III with increased emphasis placed on individual practice and development. Additional emphasis placed on the analysis and sounds of foreign dialects and regional accents. Students also learn to vary stage voice for age and character roles. Must be taken sequentially with TPP 3712.

Acting III - Verse: PR: THE 3110, TPP 3511, TPP 3712. Restricted to B.F.A. theatre performance majors or Department consent. Class/laboratory study concentration on verse drama with particular emphasis placed on scansion and verse in the plays of William Shakespeare.

Acting IV - Studio I: PR: TPP 3730, 4140, 4531. Restricted to B.F.A. theatre performance majors or Departmental consent. Lecture/laboratory study designed to expose the student to various acting, styles and plays from classical through postrealism. Emphasis on development of student's virtuosity. All students must receive a grade of "C" or above to continue in the sequence. Required of all B.F.A. theatre performance majors.


Acting for TV/Film: PR: TPP 4142. Restricted to B.F.A. theatre performance majors or Departmental consent. Lecture/laboratory study designed to expose the student to practical techniques of television and film acting. Extensive studio work.


Stage Movement IV: PR: TPP 3512. Restricted to B.F.A. theatre performance majors or Departmental consent. Continuation of Stage Movement III. Attention given to stage combat. Must be taken sequentially with TPP3512.

Theatre Performance Internship: PR: Restricted to B.F.A. theatre performance majors, the internship is subject to Departmental approval. Off-campus internship programs provide opportunity for practical work in professional theatre. Contact the Departmental office for specific requirements. Required of all B.F.A. theatre performance majors.

ESOL Strategies: This course will survey cross-cultural communication and understanding, testing and evaluation, curriculum and methods of teaching ESOL to meet the needs of limited English proficient students.

Critical Approaches to ESOL: Analysis, planning, design, and evaluation of curriculum and curricular models.

Applied Linguistics: Applying linguistics, psycholinguistics, and sociolinguistics to teaching English as a second language with emphasis on pronunciation, intonation, structural analysis, morphophonemics, and decoding from print to sound.

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Methods of ESOL Teaching: This course is designed to develop understanding, knowledge and skills of the current methods used in the teaching of ESOL.

Problems in Evaluation in ESOL: Survey, selection, and design of instruments of evaluation for use with limited English proficient students.

ESOL Cultural Diversity: This course is designed to identify major cultural groups represented by the LEP population in Florida schools and to understand their special needs.


Urban Systems Design: PR: TTE 4004. Project course on design of transportation and urban systems using engineering design methodologies.

Traffic Engineering: PR: TTE 4004. Study of operator and vehicle characteristics, and design for street capacity, signals, signs, and markings.


Transportation Safety Analysis: PR: TTE 4004. Identification of the factors contributing to the accident occurrence and the evaluation of safety investments.

Railroad Engineering: PR: TTE 4004 and C.I. The major technical factors in location, construction, maintenance, and operation of railroad transportation systems.

Geometric Design of Transportation Systems: PR: TTE 4004. Study of geometric and construction design elements in the engineering of transportation systems.

Pavement Design: PR: CEG 4101C. Pavement types, wheel loads, stresses in pavement components; design factors such as traffic configurations, environment, and economy.

Visual Communication: A study of the visual system of man and the influences of the visual media on modern society.

Vertebrate Zoology: PR: 6 hours of zoology or C.I. Evolution and classification followed by an introduction to vertebrate ecology, natural history, and behavior.

Comparative Vertebrate Anatomy: PR: ZOO 2010C. The vertebrate animals, relationships of organs and systems, and their phylogenetic significance.

Human Anatomy: PR: BSC 2010C or equivalent. Structure of the human body.

Invertebrate Zoology: PR: 8 hours of biology or C.I. Taxonomy, anatomy and ecology of the invertebrate animals.


Vertebrate Histology: PR: BSC 2010C and ZOO 2010C. Microanatomical detail plus appropriate developmental and functional considerations of major cell types, primary tissues, organs, and organ systems. Survey of modern animal-tissue microtechnique.

Fisheries Management: PR: ZOO 2010C or C.I. Fisheries Management of freshwater environments to include identification, sampling methods, farming and hatchery operations, propagation and population estimates.

Ichthyology: PR: ZOO 3303C or C.I. Introduction to the biology of the fishes, their classification, evolution, and life histories.
ZOO 5463C  
Herpetology: PR: 6 hours of zoology or C.I. Introduction to the biology of the amphibians and reptiles, their classification, evolution, and life histories.

ZOO 5475C  
Ornithology: PR: 6 hours of zoology or C.I. Introduction to the biology of birds, their classification, evolution, and life histories.

ZOO 5486C  
Mammalogy: PR: 6 hours of zoology or C.I. Introduction to the biology of mammals, their classification, evolution, and life histories.

ZOO 5745C  
Essentials of Neuroanatomy: PR: Human/Comparative Anatomy, or Human/Animal Physiology or C.I. Fundamental concepts of both morphological and functional organization of the nervous system. Primary emphasis on human structure.

ZOO 5815  
Zoogeography: PR: 8 hours of zoology or C.I. Principles and concepts concerning regional patterns of animal distributions of the world, both past and present.
FACULTY

The date indicates the first year of employment at the University of Central Florida.

ABBOTT, DAVID W., Professor of Psychology
(1968), B.A., M.S., Ph.D. (University of Massachusetts)

ABDEL-ATY, MOHAMED, Assistant Professor of Engineering
(1995), B.S.C.E., M.S.C.E., Ph.D. (University of California at Davis)

ABEL, EILEEN M., Assistant Professor of Social Work
(1978), A.B., M.S.W. (University of Maryland)

ABRAMOWITZ, BENJAMIN L., Instructor of Management
(1983), M.B.A. (George Washington University)

ACIERNO, LOUIS J., Professor of Health Sciences (Cardiopulmonary Science)
(1981), B.S., M.D. (Georgetown University)

ADAMS, CAROLE, Director of Women’s Studies and Associate Professor of History
(1993), B.A., M.A., Ph.D. (Harvard University)

ADICKS, RICHARD R., Professor of English
(1968), B.A.E., M.A., Ph.D. (Tulane University)

AGARWAL, RAJSHREE, Assistant Professor of Economics

AL-DEEK, HAITHAM M., Assistant Professor of Engineering
(1992), B.C.E., M.S., Ph.D. (University of California at Berkeley)

ALLEN, JANET S., Visiting instructor, Instructional Programs
(1992), B.S., M.Ed. (University of Maine)

ALLEN, JEFFERY W., Associate Professor of Marketing
(1990), B.S., M.B.A., D.B.A. (University of Kentucky)

ALLEN, KAY WILLIAMSON, Associate Professor of Education
(1990), B.S., M.Ed., Ph.D. (University of South Carolina)

ALLISON, ANNE MARIE, Director of Libraries
(1983), B.A., M.A.L.S. (Rosary College)

ANDERSON, HENRY R., Chairholder, KPMG Peat Marwick Professorship and Professor of Accounting
(1963), B.A., M.S., Ph.D. (University of Missouri - Columbia), C.P.A., C.M.A., C.C.A.

ANDERSON, ELLEN PATTON, Instructor Librarian

ANDREWS, JOSEPH C., Head, Collection Development/Acquisitions Department and University Librarian

ANDREWS, LARRY C., Professor of Mathematics and Electrical and Computer Engineering
(1972), B.S., M.S., Ph.D. (Michigan State University)

ANTHONY, JOBY M., Associate Professor of Mathematics
(1970), B.S., M.A.M., Ph.D. (North Carolina State University)

ARISTIQUETA, MARIA P., Instructor of Public Administration
(1988), B.S.W., M.P.A., (University of South Florida)

ARMACOST, ROBERT L., Associate Professor of Engineering
(1991), B.S., M.S.O.R., D.Sc. (George Washington University)

ARMSTRONG, JOHN H., Associate Professor of Education
(1970), B.S., M.S., Ed.D. (Oklahoma State University)

ARMSTRONG, LEE H., Professor of Mathematics
(1968), B.A., M.S., Ph.D. (Florida State University)

ARNOLD, ROBERT L., Professor of Communication
(1968), B.A., M.A., Ph.D. (Ohio University)

ASHLEY, ROBERT A., Assistant Professor of Hospitality Management
(1984), B.S., M.S., (Florida International University)

ATKINSON, STANLEY M., Associate Professor of Finance
BACH, SUSAN A., Visiting Assistant Professor of Hospitality Management (1993), B.S., M.A., Ph.D. (New York University)

BAILEY, CHARLES D., Professor of Accounting (1991), B.B.A., M.B.A., M.P.A., Ph.D. (Georgia State University)

BAILEY, REBECCA A., Associate Professor of Education (1988), B.S., M.A., Ph.D. (Florida State University)

BALADO, CARL, Associate Professor of Education (1987), B.A., M.S., M.Ed., Ed.D. (Florida Atlantic University)

BALLARD, R. ROCHELLE, Associate University Librarian (1989), B.S., M.L.S., C.A.S. (University of Pittsburgh)

BANDY, DALTON D., Knight's Professor of Accounting (1985), B.S., M.B.A., Ph.D. (The University of Texas at Austin), C.P.A.

BARLOW, NADINE G., Instructor of Astronomy (1996), B.S., Ph.D. (University of Arizona)

BARNES, BETH, Senior Executive Assistant to the President and Associate Professor of English (1975), B.A., M.A., Ph.D. (University of North Carolina at Chapel Hill)

BARR, CAROL J., Director of Health Information Management and Assistant Professor of Health Services Administration (Health Information Management) (1986), B.S., M.A. (University of Central Florida)

BARRINGER, BRUCE, Assistant Professor of Management (1995), B.S., M.B.A., Ph.D. (University of Missouri-Columbia)

BARSCH, KARL-HEINRICH, Associate Professor of Foreign Languages and Literatures (1977), B.A., M.A., Ph.D. (University of Colorado)

BASSIOUNI, MOSTAFA, Professor of Computer Science (1981), B.S., M.S., Ph.D. (Pennsylvania State University)

BAST, CAROL M., Assistant Professor of Legal Studies (1992), B.A., M.A., J.D. (New York Law School)

BATARSEH, ISSA E., Associate Professor of Engineering (1991), B.S., M.S., Ph.D. (University of Illinois at Chicago)

BAUER, CHRISTIAN S., JR., Director of External Relations, College of Engineering, and Professor of Engineering (1970), B.S.I.E., M.S.E., Ph.D. (University of Florida), P.E. (Florida)

BAUMBACH, DONNA J., Professor of Education (1978), B.S., M.S., Ed.D. (Indiana University)

BAZEMORE, NORRIS S. Jr., Associate University Librarian (1984), B.A., M.A., M.L.S. (University of South Carolina)

BECKER, DONALD C., Assistant Professor of Criminal Justice (1976), B.A., M.Ed. (Wayne State University)

BELL, MARTHA, Associate Professor of Education (1989), B.A., M.A., Ed.S., Ph.D. (University of Florida)

BENSON, CYNTHIA, Instructor of Political Science (1985), B.S., M.A. (Ohio University)

BERINGER, JOHN F., JR., Professor of Health Services Administration (1975), B.S., M.S.P.H., Ph.D., M.P.H. (University of North Carolina)

BERRINGER, ORVILLE M., Professor of Molecular Biology and Microbiology (1981), B.S., M.S., Ph.D. (University of Oregon)

BIEGEL, JOHN E., Professor of Engineering (1982), B.S.I.E., M.S.E.S., Ph.D. (Syracuse University), P.E. (Florida)


BISHOP, DONNA M., Associate Professor of Criminal Justice (1995), B.A., M.A., Ph.D. (State University of New York-Albany)
BISHOP, PATRICIA J., Director of Graduate Studies and CAE Link Distinguished Professor of Engineering  
(1978), B.S.E., M.S.M.E., Ph.D. (Purdue University), P.E. (Florida)  
BLAIR, TIMOTHY R., Professor of Education  
(1991), B.S., M.S., Ph.D. (University of Illinois)  
BLAU, BURTON I., Associate Professor of Psychology  
(1972), B.A., M.A., Ph.D. (Southern Illinois University)  
BLEDSOE, ROBERT L., Chair and Professor of Political Science  
(1968), B.A., M.A., Ph.D. (University of Florida)  
BLOCK, DAVID L., Director, Florida Solar Energy Center and Professor of Engineering  
(1968), B.S., M.S., Ph.D. (Virginia Polytechnic Institute), P.E. (Florida)  
BLUM, RICHARD A., Professor of Communication  
(1993), B.A., M.S., Ph.D. (University of Southern California)  
BLUME, DELORS M., Associate Professor of Education  
BOGUMIL, WAL TER A., JR., Associate Professor of Management  
(1972), B.S., M.B.A., Ph.D. (University of Georgia)  
BOH M, ROBERT M., Professor of Criminal Justice  
(1995), A.B., M.A., Ph.D. (Florida State University)  
BOLEMON, JAY S., Associate Professor of Physics  
(1968), B.S., Ph.D. (University of South Carolina)  
BOLLET, ROBERT M., Associate Professor of Education  
(1973), B.S., M.S., Ed.D. (Ball State University)  
BORDE, STEPHEN, Assistant Professor of Finance  
(1994), B.P.S., M.B.A., Ph.D. (Florida Atlantic University)  
BOREMAN, GLENN D., Associate Professor of Engineering  
(1984), B.S., M.S., Ph.D. (University of Arizona), P.E. (Florida)  
BOSE, SUBIR K., Professor of Physics  
(1987), B.Sc., M.Sc., Ph.D. (University of Allahabad)  
BOWERS, CLINT, Assistant Professor of Psychology  
(1994), B.S., M.A., Ph.D. (University of South Florida)  
BOYTE, JUDITH P., Director, Office of Academic Support and Information Services  
(1984), B.A., M.P.A. (University of Central Florida)  
BOZEMAN, WILLIAM C., Professor of Education  
BRAIN, PRISCILLA V., Instructor in English  
(1984), B.A., M.A. (University of Central Florida)  
BRAUN, BRADLEY M., Associate Professor of Economics  
(1986), B.S., M.A., Ph.D. (Tulane University)  
BRAY, DENNIS W., Assistant Professor of Military Science  
(1989), B.S. (Arizona State University)  
BRENNAN, JOHN J., Professor of Physics  
(1968), B.S., M.S., Ph.D. (Georgia Institute of Technology)  
BRIGHAM, ROBERT C., Professor of Mathematics and Computer Science  
(1970), B.S., M.S., Ph.D. (New York University)  
BRODIE, LYMAN A., Chair, Department of Music and Associate Professor or Music  
(1990), B.A., M.M.E. (North Texas State University)  
BROPHY, JAMES C., Associate Professor of Psychology  
(1969), B.A., Ph.D. (Vanderbilt University)  
BROWNE-KRIMSLEY, VALERIE A., Coordinator and Assistant Professor-Brevard Campus  
BRUMBAUGH, DOUGLAS K., Professor of Education  
(1969), B.S., M.Ed., Ed.D. (University of Georgia)  
BRUNELL, MARY LOU, Project Coordinator/Instructor of Nursing  
(1990), M.S.N., R.N. (University of Pennsylvania)  
BRUNNER, DAVID L., Director of Choral Activities and Associate Professor of Music  
BRUTTEN, GENE J., Visiting Professor of Communicative Disorders
(1995), B.A., M.A., Ph.D. (University of Illinois)

BRYANT, CPT SYLVESTER G., Assistant Professor of Military Science
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BUCHOFF, RITA B., Instructor of Education

BURROUGHS, WAYNE A., Professor of Psychology
(1969), B.A., M.A., Ph.D. (University of Tennessee)

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(1995), B.S.N., M.Ed., M.N., Ph.D. (University of Texas at Austin)

BURROUGHS, WAYNE A., Professor of Psychology
(1969), B.A., M.A., Ph.D. (University of Tennessee)

BUTLER, JOHN F., Associate Professor of Communication
(1971), B.A., M.A., Ph.D. (University of Florida)

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(1991), B.S., M.S., Ph.D. (Texas A&M University), P.E. (Florida)

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(1971), B.A., M.A., Ph.D. (University of Florida)

BUCHOFF, RITA B., Instructor of Education

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BRYANT, CPT SYLVESTER G., Assistant Professor of Military Science
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BUCHOFF, RITA B., Instructor of Education

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SIMMONS, ROGER D., Head, Circulation Department and University Librarian
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SLAUGHTER, DAVID B., Assistant Professor of Legal Studies
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(1995), B.S., M.S. (Troy State University)

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SMITH, HARRY W., JR., Professor of Theatre
(1969), B.A., M.A., Ph.D. (Tulane University)

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(1980), A.B., M.A., M.A. (Ball State University)

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(1990), B.S., M.A., Ph.D. (Johns Hopkins University)

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(1970), B.S., Ph.D. (Cornell University)

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SOILEAU, MARION J., Director of CREOL and Professor of Engineering Science
(1986), B.S., M.S., Ph.D. (University of Southern California)

SOMERVILLE, PAUL N., Professor of Statistics
(1972), B.Sc., Ph.D. (University of North Carolina)

SOMMER, MARGARET E., Associate Professor of English
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SORG, STEVEN E., Associate Professor of Education
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SOSKIN, MARK D., Associate Professor of Economics, Daytona Campus

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(1992), B.S., M.S., Ph.D. (Purdue)

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STEBBINS, CONSUELO, Assistant Professor of Foreign Languages and Literatures
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STEGEMAN, GEORGE I.A., Chairholder, Cobb-L.J. Hooker Chair in Optical Sciences and Professor of Physics Engineering
(1990), B.S., M.S., Ph.D. (University of Toronto)
STEWART, HELEN L., Counselor/Instruction/Advisor, College of Education Records and Advisement Center
(1990), B.A., M.A., Ed.D. (University of Central Florida)

STICKLEY, C. MARTIN, Professor of Engineering
(1990), B.S.E.E., M.S.E.E., Ph.D. (Northeastern University)

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(1966), B.A.L.S., M.A. (Florida State University)

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(1990), B.S., M.A. (Columbia University)

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SULLIVAN, TIMOTHY J., Associate Professor of Education

SUNDARAM, KALPATHY B., Associate Professor of Engineering Science
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SUNG, STELLA, Associate Professor of Music
(1991), B.A., M.F.A., M.S.W., Ph.D. (University of Texas at Austin)

SURRETTE, RAYMOND B., Professor of Criminal Justice
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SUTTON, LINDA J., University Librarian
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SWEENEY, MICHAEL J., Associate Dean, College of Health and Public Affairs, and Professor of Molecular Biology and Microbiology
(1972), B.S., Ph.D. (Temple University School of Medicine)

SWEET, HAVEN C., Associate Dean, College of Arts & Sciences and Professor of Biology
(1971), B.S., Ph.D. (Syracuse University)

TANNER, JOHN P., Visiting Assistant Professor of Engineering Technology

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TAYLOR, FINLEY M., Assistant Professor of Foreign Languages and Literatures
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TAYLOR, JAMES S., Director Environmental Systems Engineering Institute and Professor of Engineering
(1977), B.S.I.E., M.S., Ph.D. (University of Florida), P.E. (Florida)

TAYLOR, K. PHILLIP, Professor of Communication
(1970), B.A., Ph.D. (Indiana University)

TAYLOR, MICHAEL D., Professor of Mathematics
(1968), B.A., M.S., Ph.D. (Florida State University)

TAYLOR, WALTER K., Professor of Biology
(1969), B.S., M.S., Ph.D. (Arizona State University)

TEEPELE, EUGENE E., Professor of Marketing
(1968), B.S., M.B.A., D.B.A. (University of Oregon)

TELL, PHILLIP M., Associate Professor of Psychology
(1969), B.A., M.A., Ph.D. (University of Virginia)

TETT, ROBERT, Visiting Professor of Psychology
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THOMAS, MARGARET H., Professor of Psychology
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THOMSON, DOUGLAS R., Assistant Professor of Military Science
THROM, QUE, Director of Partners in Art for Visual Education
TREFONAS, LOUIS M., Professor of Chemistry
(1981), B.A., M.S., Ph.D. (University of Minnesota)
TUBBS, LeVESTER, Vice President for Student Affairs and Associate Professor of Education
(1980), B.S., M.S., Ed.D. (University of Missouri-Columbia)
TUCKER, RICHARD D., Professor of Psychology
(1972), A.B., M.A., Ph.D. (Emory University)
TZANNES, NICOLAOS S., Professor of Engineering
(1986), B.E.E., M.E.E., Ph.D. (Johns Hopkins University)
UMPHREY, ROBERT E., Professor of English
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UTT, HAROLD A., Jr., Assistant Professor of Communicative Disorders
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VAJRAVELU, KUPPALAPALLE, Associate Professor of Mathematics and Mechanical and Aerospace Engineering
(1984), B.A., M.S., Ph.D. (Indian Institute of Technology)
VALENTINE, JOHN A., Assistant Professor of Health Services Administration
VAN HOOK, MARY P., Associate Professor of Social Work
(1995), B.A., M.S.W., Ph.D. (Rutgers University)
VAN STRYLAND, ERIC W., Professor of Physics
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VANRYCKEGHEM, MARTINE, Assistant Professor of Communicative Disorders
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VENTRE, GERARD G., Associate Professor of Engineering
(1969), As.E., M.S., Ph.D. (University of Cincinnati). P.E. (Florida)
VICKERS, DAVID H., Chair Department of Biology and Associate Professor of Biology
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VITTES, M. ELLIOT, Assistant Dean, College of Arts & Sciences and Associate Professor of Political Science
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WAHLMAN, MAUDE, Professor of Art
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(1975), B.A., M.A., Ph.D. (University of Florida)
WALSH, JAMES E., Coordinator, General Engineering Technology Program and Assistant Professor of Engineering Technology
WALTERS, CHERYL D., Associate University Librarian
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WALTON, GWENDOLYN H., Assistant Professor of Engineering
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WANG, ALVIN Y., Associate Professor of Psychology
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WANG, MORGAN, Associate Professor of Statistics
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WANIELISTA, MARTIN P., Dean, College of Engineering and Professor of Engineering (1970), B.S.C.E., M.S., Ph.D. (Cornell University), P.E. (Florida)
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WEAVER, WILLIAM C., Associate Professor in Finance (1990), B.S., M.B.A., Ph.D. (Georgia State University)
WEBB, JACK L., Associate University Librarian (1993), B.A., M.L.S. (Emoria State University)
WEEKS, ARTHUR R., Associate Professor of Engineering (1990), B.S., M.S., Ph.D. (University of Central Florida)
WEIDER-HATFIELD, DEBORAH, Professor of Communication (1990), A.B., M.A., Ph.D. (Purdue University)
WEISHAMPEL, JOHN, Assistant Professor of Biology (1995), B.S., M.A., Ph.D. (Duke University)
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WELLMAN, CHARLES W., Professor of Art (1971), B.F.A., M.A., M.F.A. (The University of New Mexico)
WEST, GAIL M., Visiting Professor and Director of Research, College of Education (1991), B.A., M.A., Ph.D. (Florida State University)
WHISLER, BRUCE A., Associate Dean. College of Arts and Sciences and Associate Professor of Music (1971), B.A., Ph.D. (University of Rochester)
WHITE, DANIEL R., Associate Professor of Humanities (1988), B.A., M.A., Ph.D. (Florida State University)
WHITE, KENNETH, Associate Professor of Economics (1968), B.S., M.B.A., Ph.D. (University of Oklahoma)
WHITE, ROSEANN S., Professor of Molecular Biology and Microbiology (1969), B.S., Ph.D. (University of Texas)
WHITEHOUSE, GARY E., Provost and Vice President for Academic Affairs and Professor of Engineering (1976), B.S.I.E., M.S.I.E., Ph.D. (Arizona State University), P.E. (Florida, Pennsylvania)
WHITNEY, JOHN C., Director of Orchestral Activities and Professor of Music (1982), B.S., M.M. (New England Conservatory)
WHITTIER, HENRY O., Professor of Biology (1968), B.S.Ed., M.A., Ph.D. (Columbia University)
WIGMORE, MARY ANN, Visiting Instructor of Accounting (1992), M.S.T. (University of Central Florida), C.P.A.
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WILLIAMS, F.JELDHEIM, KARRI J., Associate Professor of Education (1984), B.S., M.Ed., Ph.D. (University of Arizona)
WILLIAMS, KENT E., Assistant Professor of Engineering (1976), B.A., M.A., Ph.D. (University of Connecticut)
WINK, DIANE M., Associate Professor of Nursing (1987), B.S., M.A., M.S.N., Ed.D. (University of Central Florida)
WODZINSKI, RUDY J., Professor of Molecular Biology and Microbiology (1970), B.S., M.S., Ph.D. (University of Wisconsin)
WOELK, MARTHA D., Visiting Instructor of History
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(1969), B.A., M.S., Ph.D. (Florida State University)

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(1976), B.S., M.S., Ph.D. (University of Iowa)

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(1978), B.S., M.P.H. (University of Central Florida)

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BOLTE, JOHN R.
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BROWN, WILLIAM R.
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(1968), B.A.Ed., M.A.Ed., Ph.D. (Kent State University)  
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(1968), B.S., M.Ed., Ed.D. (University of Missouri)  
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(1967), B.S.E.E., B.E.E., M.S.E., Ph.D. (University of Florida), P.E. (Florida)  
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HUBLER, J. W.  
(1967), B.S.C.E., C.E., M.S.E., M.S.C.E. (Yale University), D.Eng. S. (Hon.) (University of Central Florida), P.E. (Florida and 18 other states)  
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KERSTEN, ROBERT D.  
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LYTLE, ERNEST J.*  
(1968), B.S., M.A., Ph.D. (University of Florida)  
Professor Emeritus of Mathematical Sciences

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(1970), B.S., M.A.Ed. (Florida Atlantic University)  
Distinguished Professor Emeritus of Education

McLELLON, WALDRON M.  
(1969), B.S., B.C.E., M.C.E., M.S. (Physics), M.S. (Env. Engr.), Ph.D. (Rensselaer Polytechnic Institute)  
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MICARELLI, CHARLES N.  
(1967), B.A., M.A., Ph.D. (Boston University)  
Dean and Professor Emeritus of Foreign Languages and Literatures
MILLER, CALVIN C.
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SCHRADER, GEORGE F.
(1969), B.S., M.S., Ph.D. (University of Illinois), P.E. (Florida, Illinois)
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Director Emeritus of Libraries

WRIGHT, BURTON
(1970), B.S., M.S., Ph.D. (Florida State University)
Professor Emeritus of Sociology

YAROSH, MARVIN M.
(1975), B.S., M.S. (University of Minnesota)
Associate Director Emeritus of the Florida Solar Energy Center

*Deceased

HONORARY DEGREES AWARDED

December, 1969  Kurt H. Debus, Doctor of Engineering Science
William H. Dial, Doctor of Commercial Science

June, 1970   John W. Young, Doctor of Applied Science

March, 1973  Louis C. Murray, Doctor of Public Service

August, 1974 Fred Elmo Clayton, Doctor of Professional Engineering

August, 1978 Richard F. Livingston, Doctor of Business Administration

June, 1979 Albert F. Hegenberger, Doctor of Engineering Science
Lee R. Scherer, Doctor of Engineering Science

December, 1979 Joseph D. Duffey, Doctor of Humane Letters

August, 1980 Thelma Vivian Jackson Dudley, Doctor of Humanities
Howard Phillips (Posthumous), Doctor of Public Service

December, 1981 Gene Burns, Master of Letters

April, 1982 Andrew Duda, Jr., Doctor of Agricultural Service
Ferdinand Duda, Doctor of Agricultural Service
John Duda, Doctor of Agricultural Service
Robert J. Whalen, Doctor of Engineering Science

July, 1982 Mary Jo Stroud Davis, Doctor of Public Service
William E. Davis, Doctor of Public Service

December, 1982 Joseph A. Boyd, Doctor of Engineering Science
July, 1983  J.W. Hubler, Doctor of Engineering Science
          Charles Wadsworth, Doctor of Public Service
December, 1984  Allan E. Gottlieb, Doctor of Laws
June, 1985    George J. Becker, Jr., Doctor of Public Service
              Jerry Collins, Doctor of Public Service
              D. Robert Graham, Doctor of Public Service
              Walter C. Lowrie, Doctor of Engineering Science
              William C. Schwartz, Doctor of Engineering Science
March, 1986  Isaac Bashevis Singer, Doctor of Letters
October, 1988  Elie Wiesel, Doctor of Letters
December, 1988  Sven Caspersen, Doctor of Engineering Science
                John D. Holloway, Doctor of Public Service
                Wolfgang-Detlef Petri, Doctor of Commercial Science
May, 1989    David Albertson, Doctor of Humane Letters
              Frank M. Hubbard, Doctor of Public Service
              William S. Jenkins, Doctor of Humane Letters
              Charles N. Millican, Doctor of Laws
              James C. Robinson, Doctor of Public Service
May, 1990  Helen Harris Perlman, Doctor of Humane Letters
          Thaddeus Seymour, Doctor of Letters
May, 1991  Roald Hoffman, Doctor of Science
May, 1992  Robert A. Bryan, Doctor of Humane Letters
May, 1993  Buell G. Duncan, Jr., Doctor of Commercial Science
May, 1995  Norman R. Augustine, Doctor of Engineering Science
December 1995  Jesse Stone, Doctor of Humane Letters

COURTESY APPOINTMENTS

ACKERMAN, LINDA, Clinical Faculty, MLS, Department of Molecular Biology and Microbiology
B.S. (University of Florida)

ALBERT, JONATHON C., Clinical Faculty Cardiopulmonary Sciences, Health Sciences
RRT, B.S. (University of Central Florida)

ALEXANDER, GREGOR, Clinical Faculty Cardiopulmonary Sciences, Health Sciences
M.D. (Javeriana University)

ALI, ARSHAD, Professor of Biology
B.S., M.S., Ph.D. (University of Salford, England)

ALLEN, BERNICE, Clinical Faculty, Health Information Management
R.N., R.R.A.

ANDERSON, JOHN J., Clinical Faculty of Health Sciences
(1993), B.S., M.D. (University of Arkansas)

BARANCIK, STANISLAW, Professor of Foreign Languages and Literatures
M.A., Ph.D. (Adam Mickiewicz University)

BARROS, NELIO P., Assistant Professor of Biology
B.S., M.C., Ph.D. (University of Miami)

BAUSHER, MICHAEL G., Research Associate of Molecular Biology and Microbiology
B.S., M.S., Ph.D. (University of Florida)

BEST, JAMES, Faculty Associate in Theatre

BLANEY, KATHY, Clinical Faculty, MLS, Department of Molecular Biology and Microbiology
M.S. (University of Central Florida)

BOGERT, TED, Assistant Professor of Health Sciences
M.S.H.S. (University of Central Florida)

BOWERS, CLINT A., Assistant Professor of Psychology
B.S., M.A., Ph.D. (University of South Florida)

BRADLEY, BONNIE, Clinical Faculty, Health Information Management

BRIMER, MARK, PT, Clinical Faculty Physical Therapy
B.S. (Florida International University), M.B.A. (Florida Technological University)

BROWN, ASHMUN, Clinical Faculty, Health Sciences
J.D. (University of Michigan)
BURNSED, SHERI, PT, Clinical Faculty Physical Therapy
B.S. (Simmons College)

CAPRAUN, LYNN W., Clinical Faculty Cardiopulmonary Sciences
RTT, B.S., M.S. (University of Central Florida)

CASSIDY, DAVID C., Clinical Faculty Physical Therapy
M.Ed. (Auburn University)

CLARKE, THOMAS L., Faculty Associate, Department of Mathematics
B.S., M.S., Ph.D. (University of Miami)

CLAYTON, CAROL S., Ph.D., PT, Clinical Faculty Physical Therapy
B.S. (Indiana University), Ph.D. (University of Mississippi)

COMKOWYCZ, SHARON, Clinical Faculty, Physical Therapy
M.S. (South Connecticut State University)

COMPANION, MICHAEL A., Associate Professor of Psychology
B.S., M.A., Ph.D. (New Mexico State University)

CURRY, JR. R. CHARLES, Clinical Faculty Cardiopulmonary Sciences
M.D. (University of Florida)

DANIELS, GARY, Assistant Professor of Biology
Ph.D. (New Mexico State University)

DEATON, JOHN, Assistant Professor of Psychology; Commander USN, NTSC

DE LOACH, JR., BERNARD C., Professor of Engineering
B.S., M.S., Ph.D. (Ohio State University)

DELPAS, RAY, Principal Lecturer and Research Coordinator in Civil Engineering
(1994), B.S., M.S., Ph.D. (University of Glamorgan, Wales, U.K.)

DEW, DOUGLAS K., Clinical Faculty Health Sciences
M.D. (University of Miami School of Medicine)

DHERE, NEELKANTH, Research Professor of Mechanical Engineering
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DEYRUP, MARK, Assistant Professor of Biology
(University of Washington)

DUEVER, MICHAEL J., Professor of Biology
B.S., M.S., Ph.D. (University of Georgia)

ERLICH, ISAAC, M.D., Professor of Criminal Justice and Legal Studies

FRANCIS, JOHN L., Professor of Biological Chemistry
Ph.D. (Royal College of Pathologists, UK)

FRANKLIN, RAYMOND, Clinical Faculty, MLS, Department of Molecular Biology and Microbiology
M.D., Ph.D. (University of Texas)

FISHWICK, PAUL A., Associate Professor of Computer Science
B.S., M.S., Ph.D. (University of Pennsylvania)

FITZPATRICK, JACK, Clinical Faculty Cardiopulmonary Sciences
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GIBSON, JANE STRANDBURG, Associate Professor and Research Associate,
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Recent legislation has mandated changes in program admission prerequisites, program length, and course levels. This document may not include the final versions of these changes. See your college advisor for current information.